Financial Institutions and Markets

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Lecture – 10
Technical Analysis of Financial Assets

So, after discussion on the fundamental analysis of the financial assets and most particularly about the stocks, today we can discuss about another very important concept always investors and people are concerned about there is the technical analysis of the financial assets. So, basic difference between the technical analysis and fundamental analysis is for the fundamental analysis, we need all kinds of macroeconomic fundamentals, industry factors and company specific variables to see that how that particular financial asset issued by a particular company is going to perform or whether it is advisable to invest in that particular kind of asset or not.

But, whenever we are talking about the technical analysis, the technical analysis basically believes that the market is inefficient. And if you want to invest in a particular stock or invested in particular financial asset, analysis of the past data about that particular asset is sufficient enough to decide whether we should go for investing in that particular asset or not.

So, that is the basic fundamental notion of the technical analysis.

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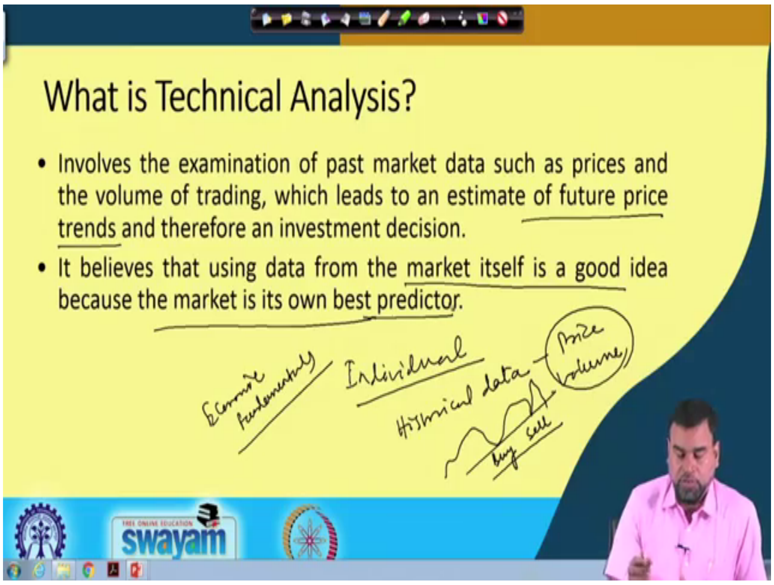

So, here if you see that, so, in true sense if you define the technical analysis, what the technical analysis is all about? Technical analysis basically involves the examination of past market data such as prices and the volume of trading which leads to an estimate of future price tends trends and therefore an investment decision. What does exactly it means? It means that whenever we are using technical analysis, we only take the data for that individual asset that individual asset data we are basically consider..

And basically, we if we have the historical data with you and this historical data we analyze, particularly this price data and volume data. And by analyzing this, we are basically tried to find out certain kind of trend, certain kind of trend or certain kind of for features or certain kind of characteristics about this data and using that characteristics, we can decide whether we should buy that particular asset or we should sell that particular asset.

So, that is the basic objective or basic notion behind the concept of the technical analysis. That is why technical analysis does not believe or does not consider any kind of economic fundamentals. Any economic fundamentals are not considered whenever we talk about the technical analysis and by using that, we are trying to estimate the future price trend. We are not estimating the future price where you can note it down that you see we are not trying to see that how much will be the price, but we are trying to find out that how the trend will be; whether the price will be up or the price will be down for that particular asset. So, accordingly we take our decision whether we should invest in that particular asset or not.

So, that is basically the basic or central theme of the technical analysis. So, the basic philosophy of the technical analysis is market itself is a good idea because market is it is its own predictor. When if you are analyzing the data of that particular asset or particular stock whether it is price data or volume data, what we are trying to say that that itself is captured all kind of information, all kind of issues, all kind of things which are related to that particular asset. So, if you are analyzing that thing that particular asset that is sufficient enough to give the idea that whether this particular investment is a good investment or not in that particular point of time.

So, technical analysis is basically always believes in the concept of market inefficiency. Then, second thing is basically what: there are different ways this technical analysis is defined.

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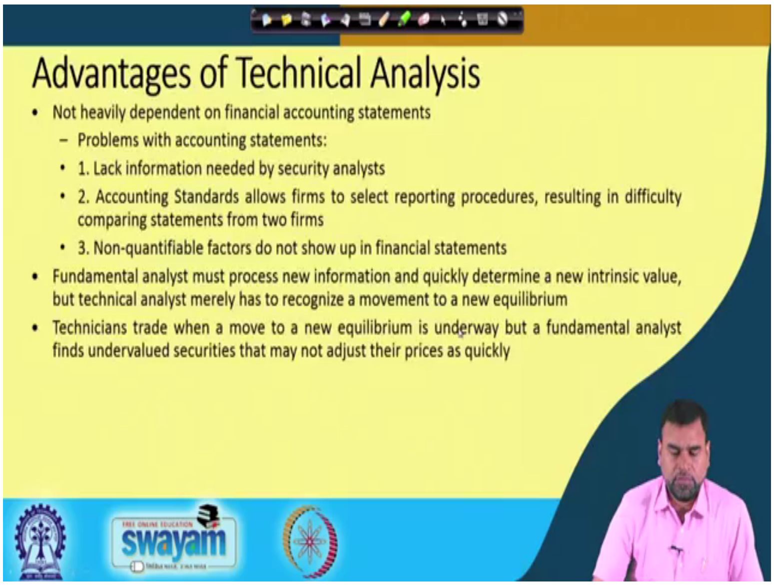

If you see that whenever we talk about the technical analysis, there are certain advantages, because the fundamental analysis needs lot of exercise, we need lot of data about the company, about the economy, about the industry and all kinds of things. But whenever you talk about the technical analysis; the technical analysis first of all it not heavily dependent on financial accounting statements. The first point if you see it does not basically bother about that what kind of financial accounting statements data is not required that particular return a particular stock price or particular bond price data is enough for us.

Because, whenever we are analyzing the accounting data, there are certain problems always we face. Sometimes whatever information we need that may not be available. And accounting standards you see this Indian accounting standard, American accounting standard allows the forms to select the reporting procedures resulting in difficulty comparing statements from two farms. So, whenever we are according to the accounting standard, whenever the reporting process changes the reporting procedure changes whatever information the analyst or the investor needs, they may not get that particular information whenever they go and invest in that particular stock or a particular kind of financial asset. So, therefore, there is no kind of hassles always we face whenever we go for technical analysis..

And another biggest advantage of the technical analysis is non quantifiable factors do not show up in the financial statements. You see financial statements basically deals with the particular data point which are basically they related to quantifiable nature or all those data can be shown in the figure term. But whenever we talk about a financial statement, there the non quantifiable factors are not basically considered. So, the non quantifiable factors whenever it is not considered, but non-quantifiable factors also play the role for the investment decisions and we are here the technical analyst believes that the non quantifiable factors impact is already captured in the stock prices or in any kind of asset prices where we are interested to invest. So, because of that what is happening that these are the major advantages what we get it whenever we are analyzing only the past data of that particular financial asset..

And another thing is the fundamental analyst must process new information and quickly determine a new intrinsic value, but technical analyst merely has to recognize a moment when equilibrium. Technical analysis this analyst basically is not always interested to find out the intrinsic value of that particular asset. Because that is there is no use on the according to technical analyst, there is no use of the intrinsic value of that asset, because we are basically we believing on the past trend. By looking at the past trend, we are trying to say that whether this particular asset is going to do well in the future or not and what kind of trend we can we can predict whether there is a upward trend or there is a downward trend. So, those trends can be predicted by using the technical analysis. So, therefore, other kind of fundamentals is not required whenever you go for this. So, therefore, the intrinsic value calculation is not that much important from the technical analysis point of view.

So, therefore, that here we have certain advantages already we have realized that technical analyst does not need any other information and as well as they do not have to go for calculating the intrinsic values and all the subjective impact or subjective informations impact is already captured through. The prices and market is the best predictor. And by using the technical analysis the investor always feels that the trend can tell you that whether the price will be up or down or depending upon that they can maximize their return or they can sense their positions in the market.

So, this is what basically the major concern about the technical analysis..

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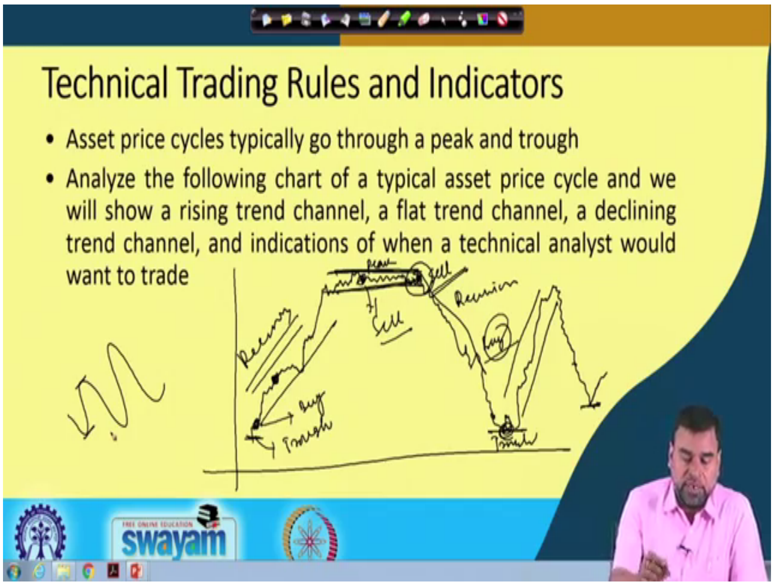

And then, you see that there are so many indicators, there are so many kind of process, so many kind of analysis is available for the technical analysis. Remember, here we are not going to discuss all type of indicators all kind of rules which are always applied to the technical analysis. I will just give you a brief idea and some of the major indicators which are used, but you can get to know about the technical analysis much once he will go through that or you after this you can get the idea that what the technical analysis is, how the basic how the investors go for technical analysis.

And then further if anybody is interested they can go and read because the concept of technical analysis is quite vast. And as well as there are more than hundred indicators which are available to say that or to conclude that what kind of trend we are going to observe in the future which are mostly used by the technical analysts in the market.

You see that technical analysis first of all believes that the asset prices typically go through a peak and trough. You see that, whenever we are talking about; for example, if you see if you remember there is a business cycle, let the price is basically going is in this way and it is go on go on recess in the particular page and start declining and again and again, again, it will lose a place then again start increasing so like that. So, here what we are trying to find out you see this is one lowest range this is one lowest range and here also you can make another lowest range.

So, these are basically the troughs. These are the trough and this is basically your recovery period and once it is reaches in the peak n, this is the flat trend what we have observed this is the upward trend and then the downward trend starts then again this is basically we call it the recession. And finally, it is recess again in the top and again start picking up. So, any kind of asset prices also follows in the same kind of path.

So, whenever any investor goes to the market, he will always try to find out we are in which particular range. If somewhere, basically this investor is here or here basically it is they will buy and once they will reach here they try to sell. And again, they will they can hold on in a particular point of time because that is a flat range they are getting and once they will reach here then again it will start declining then obviously, they will sell here and in this range basically again what they will show the price is going down. So, before that they will sell it. And in the downing stage basically also they can go on buy it. And they will wait once they reach in the trough and again it will go on increasing then they can get some kind of return.

So, there is some kind of cycle always we can observe whenever we are analyzing this stocks. So, here what we are trying to find out that like the business cycle also goes in the same way, there is a trough, there is a peak, there is a recession, there is boom and etcetera, etcetera. The same thing we can observe in those stock prices or any kind of financial assets which always we deal with in the market. So, here the technical analyst always try to identify we are in which pace and accordingly they take the decision whether they want to buy or they want to sell.

So, in this context, this gives a better idea that whether we should go for taking the position in that particular asset or not.

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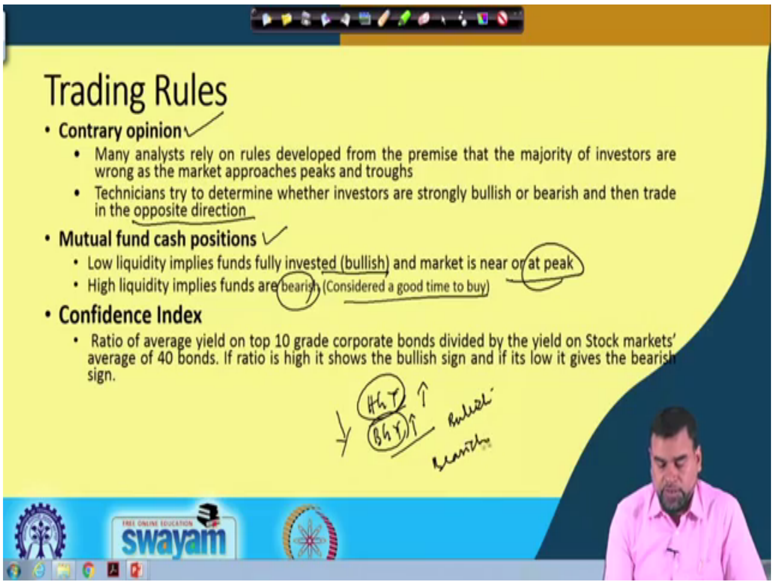

So, there are different type of for trading rules. Already I told you I will explain some of the trading rules which are popularly used because it is not possible to discuss all type of rules, because that technical analysis itself is quite very vast; if you talk about the different type of for all type of technical indicators which are used by the technical analysts.

So, the first trading very very popular rule is contrary opinion. If you see this, then you will find that the contrary opinion is basically a kind of here the first one. Then, what do mean why the contrary opinion? The contrary opinion is that which is basically going against the majority. What does it mean? Sometimes what happens many analysts rely on the rules developed from the premise that majority of investors are wrong as the market approaches peak and troughs.

So, when exactly the market reaches the peak, when exactly market reaches the trough; sometimes, the prediction or calculation is relatively difficult. So, therefore, what happens if the market everybody believes that the market is going to be bullish our market is going to be up, but or everybody believes that the market is going to be down in that particular point of time, the technical analysts who are basically believes in the concept of contrary opinion they basically go against this particular market or the majority of the analyst. Or, investor what they feel, they feel that it is not exactly the same thing it can be the reverse. So, in that context what they feel that whether investors are strongly bullish or bearish and they take the opposite direction.

If investors feel that or most of the market participants believe that the market will be bearish, they believe that the market will be bullish and everybody or most of them feels that the market will be bearish, then this technical analyst believe that the market would be bullish. That means, basically they take the opposite direction; that means, they go against this mass. So, that is very popular and contrary opinion investing investment strategy is quite popular and 70 percent of the times, they succeed in the market to maximize their return.

Then another trading rule they always use that is the mutual fund cash positions; what do you mean by this? You see whenever we invest in the mutual funds if you feel that in the mutual funds, there is a high amount of or low amount of cash depending upon that they predict that how the market is going to be. If there is a low liquidity or low amount of cash available with that particular fund; that means, the funds are fully invested and market is already bullish that is why the fund is invested and market is near or at the peak. Because, the in this particular fund manager has not kept any money with that particular fund or any liquid gas in that particular fund. They have invested all the funds into different type of financial assets because, the market is already in the peak or it is in the highly bullish situation and therefore, they want to invest all type of funds to maximize their return.

But whenever or the market is near the peak, further increase is not possible. So, in that case we believe that in the future the market may go down or we believe that that the there may be a bearish approach or bearish market we can realize in the future. Accordingly, the investor takes the decision, but if it is a high liquid; that means, funds are highly available with this fund manager we consider them the market is bearish and this is a good time to buy, you invest in your stock in that particular point of time. If the market is already bearish; that means there is expectation the market is going to be up because the fund manager have managers have not invested the fund and they have kept with them and they are waiting for the opportunity in the market is going to be up.

So, because of that if the market is going to down, so now, it is a good time to buy because the price will be less and after that there is a; obviously, there is a chance the market will be up in the near future. So, this is what basically we use another condition that is mutual fund cash position is one of the indicators which technical analysts always use. And another indicator, they have they have the confidence index. What do you mean by the confidence index? The confidence index is the ratio of average yield on top ten grade corporate bonds divided by the yield on stock markets, stock markets average of forty bonds.

If ratio is high, it shows the bullish sign. If it is low, it gives the bearish sign; that means, what they are trying to find out what are the top grade bonds, they find out the ten top grade bonds, they find out that yield and another forty bonds, the average yield they try to find out they take the ratio between them. And whenever the ratio is quite high; that means, we are saying that this particular the ratio of high means we are talking about later this is a high grade bond shield and this is this other bond yield for degrade bonds yield.

So, they are in this case if the ratio is high; that means, this yield is basically high and this is low and when it happens whenever basically the market is up market is basically up where basically it; that means, it gives that the market is bullish and if it is this ratio is low, then market is varies. So, that is another kind of trading rule basically also they apply. Then there are the other major rules also available.

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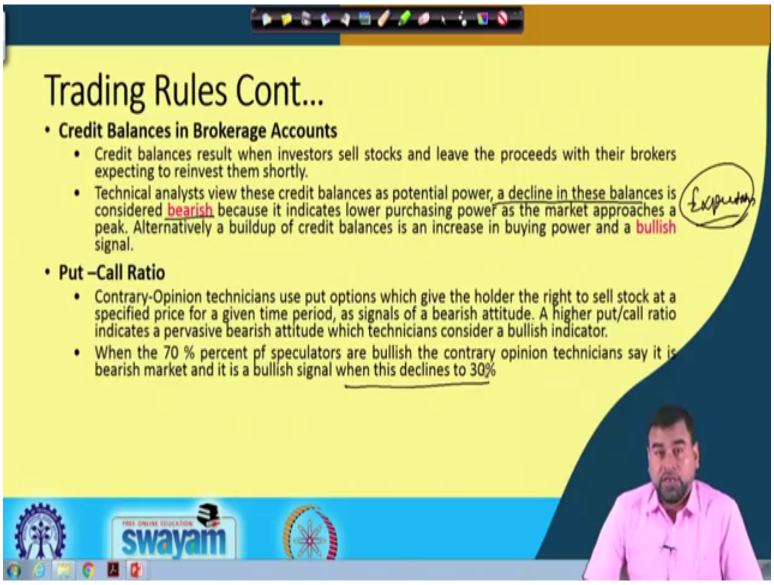

So, other majors are basically here, if you see one is credit balances and brokerage account credit balances whenever you already know that whenever we invest in the market, we basically trade through the broker. But credit balances result when the investors sell the stocks and leave the process to their broker expecting to invest them shortly. But whenever we sell the stocks at any point of time and instead of getting back the money to us, what we do we keep that particular proceeds with our stock brokers, because we are expecting that in the near future we are going to reinvest in that particular market.

So, what the technical analysts believe? The technical analysts believed that if the credit balances is less or credit balances is more accordingly they try to see that whether the market is going to be bearish or bullish.

So, a decline in the credit balances, a decline in the credit balances basically gives you a decline in the credit balances is considered as bearish because, we are saying that already the money is invested in the market and here that is why there is a decline indicate that lower purchasing power as the market approaches the peak and now, we do not have to market is cons. Now, the market is not going to be up there is a chance that the market is going to be down.

But if the more money is there; that means, they are expecting that the market is going to be bullies. You remember, these are basically depends upon the expectations about the market. If the money available to the broker is high; that means, the investor feels that in the near future they are going to invest because the market is basically going to be up that is why they are put the money immediately, and the market is now going to be bearish and they will buy the stock and expecting that the market will go up in the future.

But if already credit balances is low, then they are expecting that that they do not want to invest the market is already investment is already done in the near future maybe market is going to be down. So, depending upon that, they consider that whether market is going to be bullish or market is going to be bearish. Then, another one is the put call ratio; the put call ratio is basically what you know the put option put option basically gives the holder the right to sell the stock at the specified price and at signal when anybody wants to sell the stock, then obviously, in the in the near future the market is going to be down. So, price is going to be down, that is why they want to upload that stock.

So, higher put call ratio indicates various attitude and lower put call ratio gives a bullish attitude. So, this is what the call ratio is the reverse it gives the right to buy the stock and the put trough son gives the right to sell the stock. So, more the selling; that means, the market is going to be various in the near future and the more the call option means the market is going to be bullies in the near future. So, there is a threshold limit for that what the technical analysts basically fixes what they have fixed; that when the 70 percent of this speculators are bullish the contrary opinion technicians say it is bearish market and it is bullish signal when it declines to 30 percent.

So, that is what basically always; this is kind of role, but that may not prevail in the market every time, but if the put call ratio if you see this is a very high then we can say that this particular thing is basically market is bullish; sorry market is bearish and whenever the higher put call ratio indicates there is bearish attitude and what technicians believe that it is a bullish indicator because if they follow the contrarian investment strategy.

Then the there are some other indicators.

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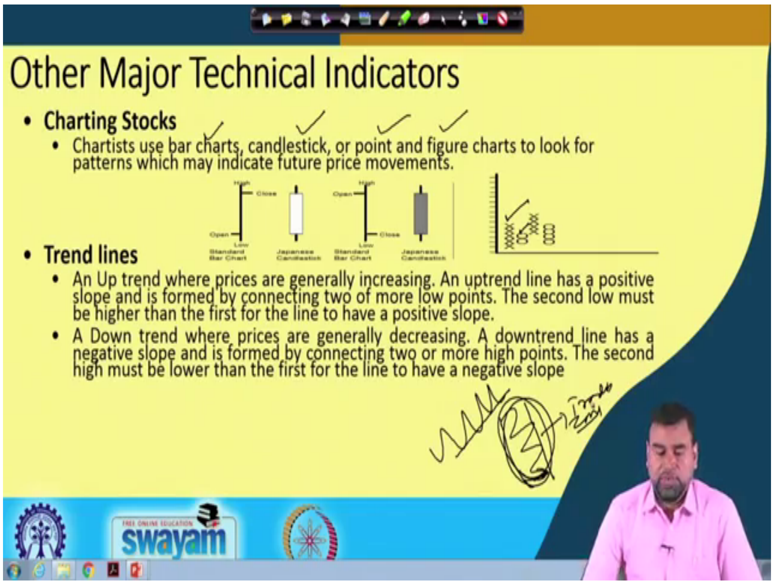

The other indicators are basically what there are different kind of charts, different kind of other numerical indicators also they use. Here, I have given some kind of figures, some kind of idea about that mostly the populars are basically, I might have heard about the bar charts, Japanese candlesticks points and figure charts. That means, here there are four things they put high close upon low and they try to fill it up then how basically means how the price is basically moving in a particular day or a particular time gap. Accordingly, they predict that the how the market is going to be going to be in the future and here whenever this, we are talking about this point and figures.

So, here basically what we talked about if the market in a particular time is down. We are putting this circle and the market is going to be up, we are putting a cross and after that we see that what is the trend about this and accordingly we can predict that whether the market is going to up and down. So, mostly these are the different type of charts there are so many types of charts the technical analysts believe to know that how the market is going to be in the future, and accordingly they change their positions.

Another one in the trend line, trend line is quite important because they find out the trading range in that, uptrend where prices are generally increasing and up trend line has a positive slope and formed by connecting two or more low points.

For example, if I say like this, so this is basically upward trend line but whenever you are talking like this is basically a downward trend line. So, the downward trend upward trend if you draw, then this is basically your trading zone, this is basically your trading zone and the trading zone you might have the idea that using the trend line what this investors basically do; they basically always go for a drawing the support and resistance line.

They support and resistance line basically used in the market. So, the support and resistance; just now what whatever basically I have drawn.

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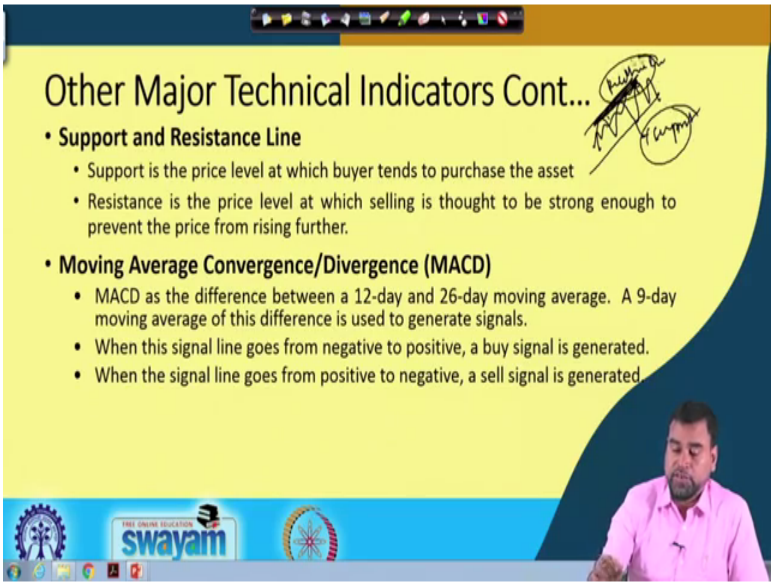

Basically if the market is if the market is fluctuating like this, then what happens that they basically draw two lines, there is a trading zone this is your support line and this is your resistance line. So, here the support line the price level at which the barker or the buyer tends to purchase the asset.

So, here in between and the resistance line is the price at which the selling is thought to be strong enough, because basically the investor feels that once the price has reached in this range further increase is not possible or where a rare sense it will increase. So, once they will reach in that particular point, they will sell it.

So once, but the resistance line also can be broken if again it is broken for majority of the times, then maybe new resistance line can be created for that particular stock or for that particular asset. So, that is why the trend line is quite important which is basically always helping us to draw the support line and resistance line in the market.

Then we have another moving average already you know that moving average is basically very important from the prediction point of view. So, we have a measure called moving average convergence on divergent MACD which is popularly known as. It is nothing but the difference between a 12 day and 26 day moving average, and a 9 day moving average of this difference is used to generate the signal. The 9 day moving average basically always used to generate the signal when the signal line goes from negative to positive, you minutely observe when the signal line goes from positive negative to positive, a buy signal is generated and when the signal line goes from positive to negative a sell signal is generated.

So, this is quite popular the MACD is quite popular among the technical analysts. Always they use it in the market whenever they go and investing in that particular sense. So, that is another indicator which is very popular among the technical analysts.

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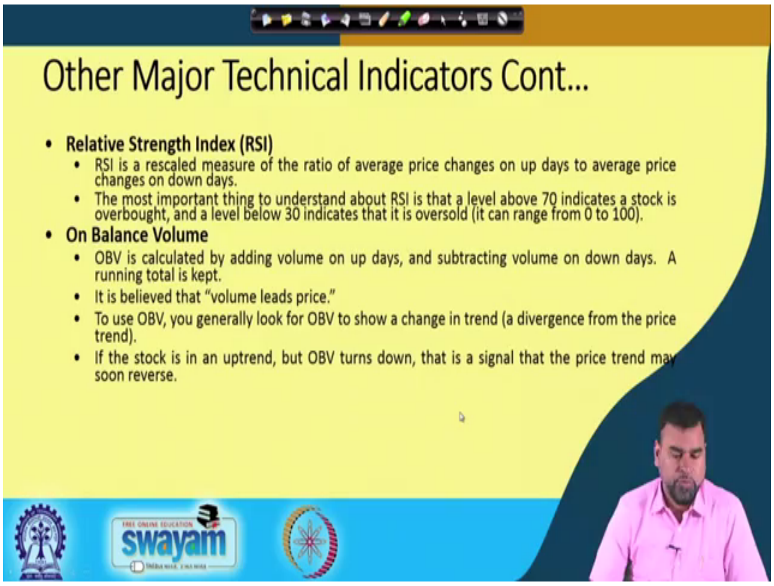

Then, we have another one of the most important indicator. There is relative strength index you might have heard about this word the relative strength index is basically a measure of the ratio of average price changes and up days to the average price changes on the down days. The most important thing to understand about relative strength index is that above 70 indicates a stock is overbought and a level below 30 indicates that it is oversold overbought means the price is already quite high; that means further increases not possible. If it is 30; that means, is oversold then there is a possibility the price will go up.

So, this is a very clear cut indicator what basically we can use. So therefore, 0 to 100 basically that always we measure that relative strength index and if 70; that means, market is already quite up; that means, most of the people have bought that stock, but that particular asset that is why the price has gone up and most of the time the price has gone up. And again if you are expecting that more return from this in the near future may not be possible, but if it is 30; that means, most of the people have sold it already the price is down. So, there is a possibility that we may incur certain kind of extra return from these, because the price is already undervalued in that particular market.

So, that is what the relative strength index is used. Then, we have another indicator that is called the unbalanced volume. It is basically what; it is calculated by adding volume on up days because these are all the price indicators on this unbalanced volume is a volume indicator. So, here we add the volume on up days.

And we basically adding volume on up days and subtracting volume on the down days the running total is kept. And the belief, the wrong balance volume basically believed that volume leads the price. On that particular philosophy, we used this on balance volume to use this unbalanced volume we generally look for OBV to show a change in the trend; that means, a divergent from the price trend. If the stock is on uptrend, but the unbalanced volume turns down that is the signal that the price strength may soon reverse.

It is very clear cut if the volume trend is up, but the stock trend is down or the stock trend is up and volume trend is down on balance volume trend is down, then what we can say that there is a reversal. Reversal in the sense, the price can from upward movement it can move towards the downward movement or from downward movement, it can move towards the upward movement. So, that basically gives a clear cut signal for how the market is going to be in the near future.

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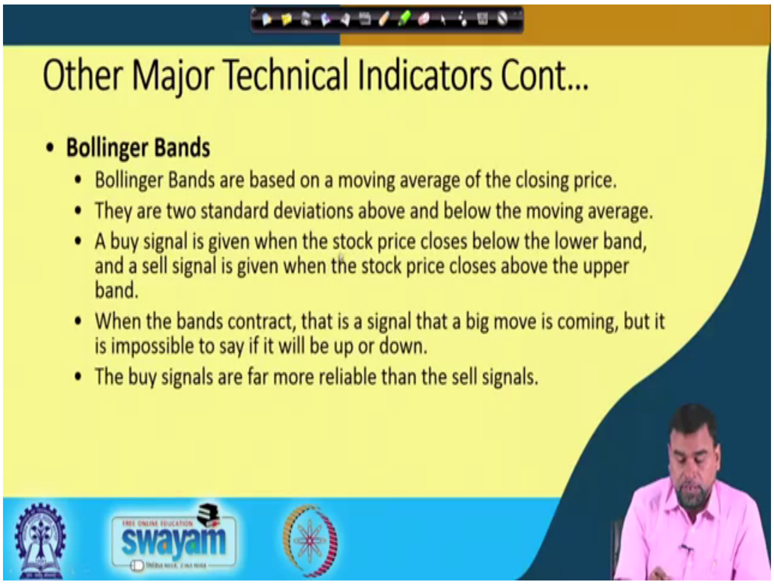

Then, we have another popular indicator that is the Bollinger band. Bollinger bands are based on the moving averages of the closing price. You know the moving averages basically make the data smoother. So here, how the band is created? See band is created in this way there are they are two standard deviation above and below the moving average. So, we draw two lines two standard deviation below, two standard deviation above and a buy signal is given when the stock price closes below the lower band and sell signal is given when the stock price closes the above's of upper band.

So, the fluctuation is two standard deviation they have measured the fluctuation can go up to two sigma. And if the price basically closes above the upper band; that means, the further increase or further fluctuation is not possible, then we should go and sell the stock because further increase is not available or is not expected and if it is basically stock price closes below the lower band; that means, we should buy that stock because there is a possibility that the stock price will go up. So, closer towards the lower band, you buy it closer toward the upper band you sell. It just like we have the support and resistance line we can use that particular Bollinger band in this concept in this particular context.

When the bands contract that is a signal that big move is coming but it is impossible to say if it will be up or down if there is kind of contract which happening between these two band and then some bigger reversal is going to happen, but in which trend or which direction that is very difficult to say whenever we are using the Bollinger bands. But whenever any techniques technical analyst uses the Bollinger band, the buy signals are far more reliable than the sell signal. So, anybody who wants to invest in this part using this Bollinger band and if they are going for the buying the stocks then this particular band is more reliable, then if somebody wants to invest in terms of the selling.

So, this is what basically this technical analysis I have just highlighted some points or some major indicators which are used, because there are more than hundred indicators which technical analysts use for the investment.

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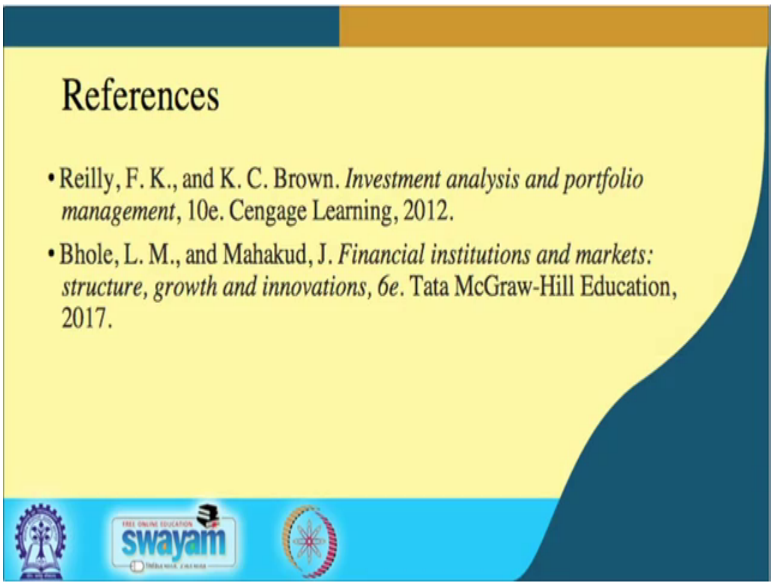

Please go through these particular references for this particular session.

So, this is all about the technical analysis. And hopeful you can read more about the technical analysis from any investment management books or any specific books on technical analysis that already available.

Thank you very much.