Security Analysis and Portfolio Management

Prof: C.S. Mishra

Department of VGSOM

Indian Institute of Technology Kharagpur

Module No. # 01

Lecture No. # 18

Company Analysis – II

Hello, in this session we are going to continue company analysis the part 2. In this, we have discussed the part 1 in the previous session, in company analysis as you discussed earlier, is a part of EIC analysis for security analysis point of view.

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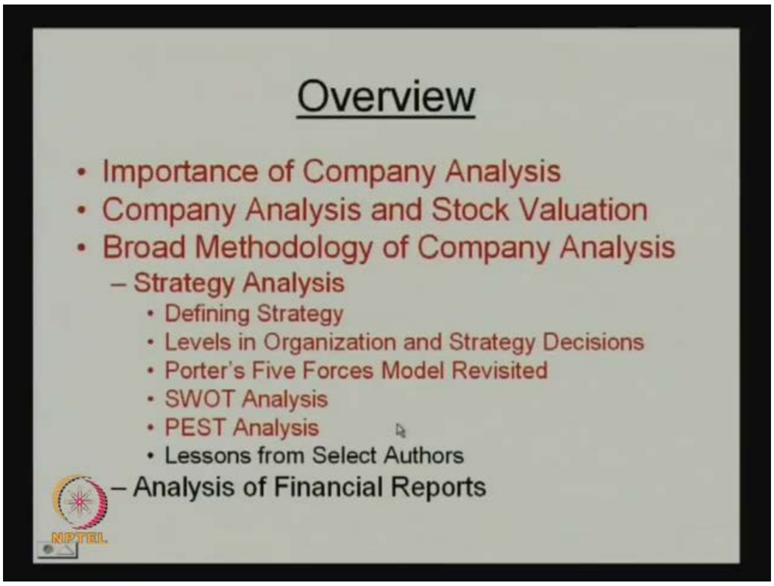

And in the previous session, we discussed about the importance of company analysis, we talked about the company analysis and stock valuation. We discussed broad methodology in that, we started the strategy analysis, in that we defined a strategy, we discussed about different organization level and strategy decisions. We discussed porter's five forces model, SWOT analysis, PEST analysis. And in this session, we are going to discuss about the lessons from select authors and also we are going to discuss about the analysis of financial reports and the ratio analysis in is to some extent.

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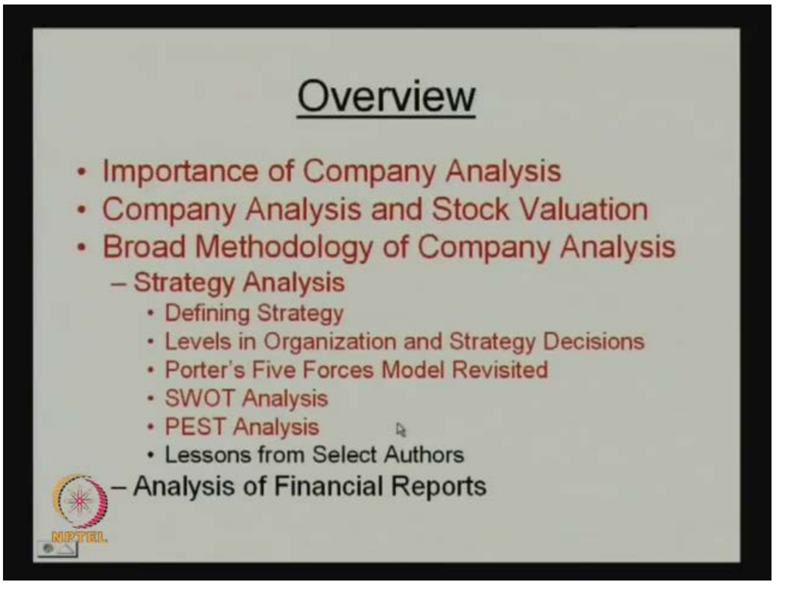

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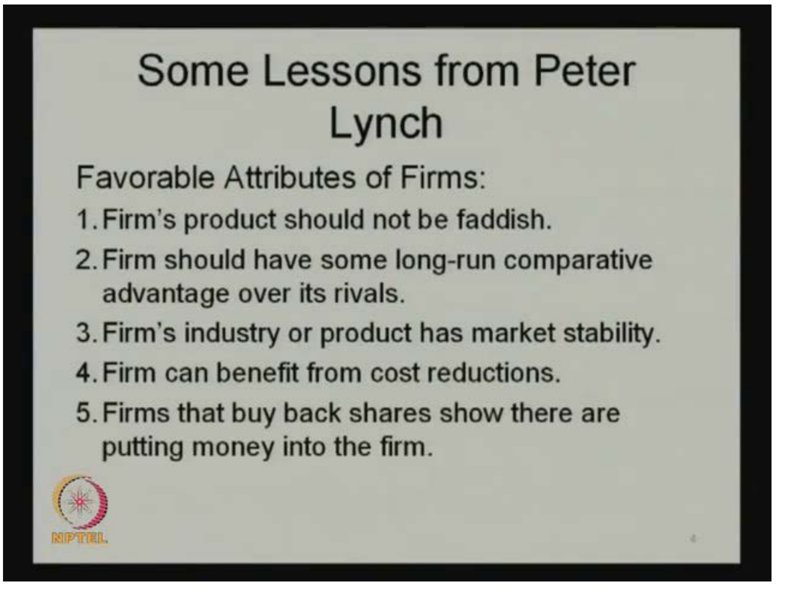

Coming to the different lessons from select authors, there is well certain comments by peter lynch. And he has advised certain things, that what could be the good attributes or favorable attributes for a firm to be to decided to invest their, such that those are the things like this the a firm's product, should not be faddish. When you say faddish, means there should be continuity and demand for the firm's products, the demand should be there. It should not be that the products are going to be obsolete in near future that means the company should have lot of growth potential from the products that company selling.

So, in case, the products are becoming faddish, then there should be new products to take care of the new customers demand for that matter. Second thing, that the author talks about is the firm should have some long-run comparative advantage over its rivals, it should not be like, that the certain advantage like, in terms in prize fund or something like that, may be the company is producing and selling at a very low cost and low price also and that could be the advantage for some time period of time, that should not be the case only. The company should have certain long term advantage, may be company should be the best in technology, a company should be very much innovative and company should be coming out the new new things, company should may have a target of producing the things at a lower cost for all the time to come.

So, there could be certain, company may have some technological tie ups, so certain things could be there, which will be giving the company certain advantage over or the competitors in a market, then this company will be sustainable and the growth is also sustainable, that could be one of the attributes for a analyst to invest or choose a company for investment.

Third thing that we have in this is the firm's industry or product has market stability, it should not be like that, today the product is there, tomorrow it is not there, it should be stable in nature that means their continuity demand has to be there. The other point that peter lynch has advised is a firm can benefit from the cost reduction, there should be scope of cost reduction and the firm should be able to get the benefit out of that and also at the end, the person the same to the customers in terms of lower price.

So, unless there is a, there should be in fact, there should be a continuous program for reducing the cost in any company for that matter without compromising on the quality of the product. Then, we have the other lesson from peter lynch, that another thing that firm's that buy back the shares, so they are putting money into the firm. So, effectively what happens? When the firms buy back the shares from the market, the existing promoters take actually increases proportionately.

So, that is one and that means the company investors, the promoters may feeling that this particular company actually has certain value, may be it is not reflected in the market, so they put a price their and buy back the shares as such, their control itself increasing, means they must have the certain interest in the company. That could be another indicator and that the company should be invested in another thing, is that when the companies go for buy back, when they feel that the shares in the market are actually under priced.

So, that is one of the reasons for going for buy back of the shares from the economy from the market. So, since the promoters, there company feels that the shares are undervalued, so it may be right point for another other investor should enter this particular stock. I invest in this stock, though other investors may sell the shares to the in the market or to the promoters or to the company, but for some other investors, may be an attractive proposition, so that is another indication of investing in a particular company.

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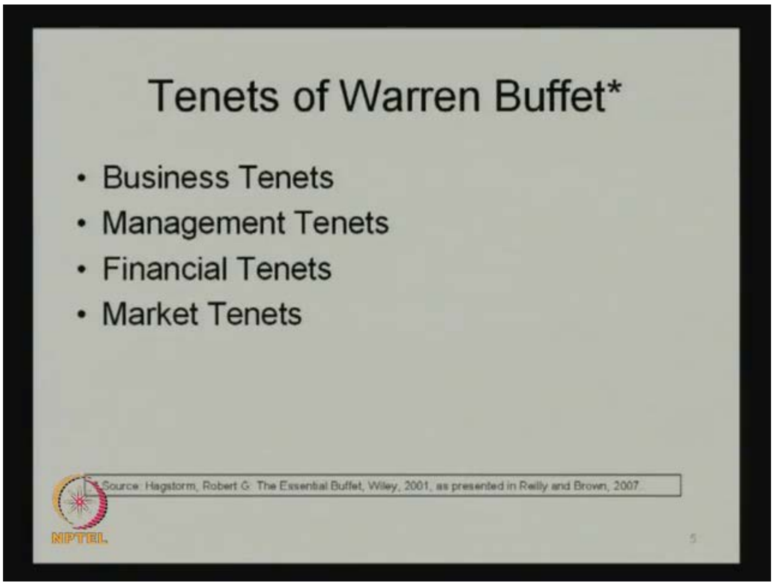

Then, we have say lessons from this celebrated author on the one of the biggest investor as such, the warren buffet. So, he has classified the tenets into four parts, the business tenets, management tenets, financial tenets and market tenets. So, we will discuss one by one.

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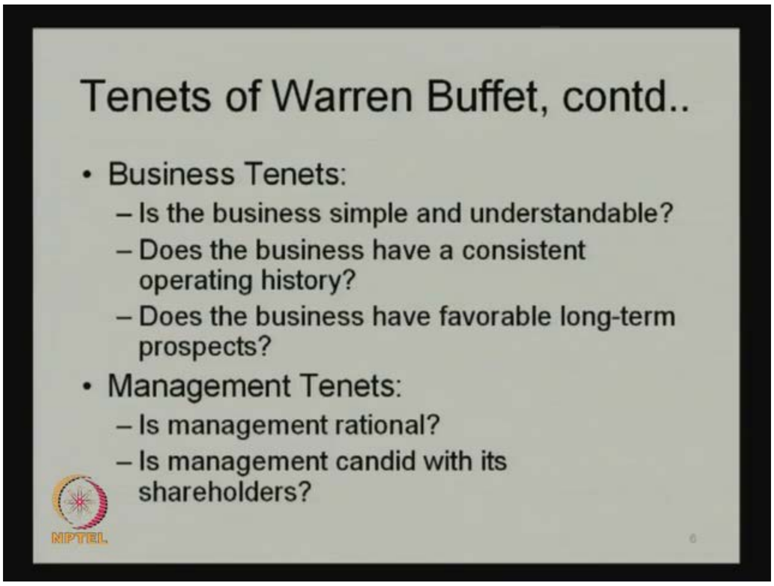

The first thing is, the first of the set up tenets, say business tenets, when in these the authors says, wherein warren buffet says that what one has to question, that is the business simple and understandable. The business should not be very complex, certain products where technologically complex, may not be, if the customers should understand also. So, there should be business structure itself, should also be simple and understandable, once the structure and everything becomes simple, then it will be very easy for the investors or the analyst to estimate the cash for particular company.

Similarly, if the company or the business should have a consistent operating history or it should not be such new to invest as such, they should have a long corporate history, their operating history also, that means this company has a history of operation, at the same time, definitely when the companies has history operation it will also have the past financial statements. One can have a look at those financial statements and find out how this company has been actually doing in the past few years as such.

Then, the business also should have favorable long term prospects, it is something like that as we as you discuss in a previous tenets like peter lynch. So, it should not be such that the company has certain products, which will be only saleable in his smaller period to the near future, but not long term future. The company should have that capacity to grow and to produce and sell or to provide services for a long period of term come.

So, that means, to ensure that the long term product performance or service performance is their, then company should have the adequate capability and ability to do that. So, also may be in terms of assets, technology tie ups or r and d efforts, all those things have to be there to ensure that the company has a favorable long term prospect.

Then, the next thing that is the author has suggested the management tenet, this is talks about the is the management rational, when you say management rational, we should go for the best investment decision. And what is best investment decision is that one should only go for value creating investment opportunity.

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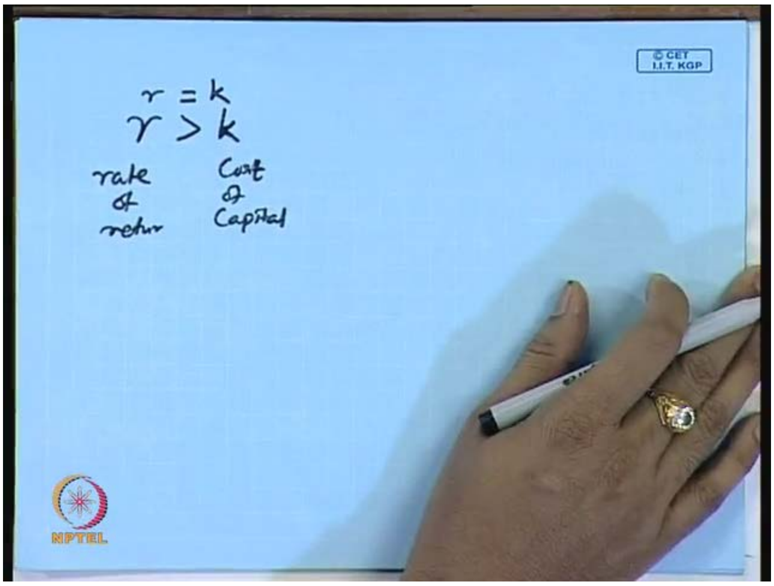

When you say value creating opportunities we mean that, it is very simple that the company should be investing in a project, which has return of, rate of return expected should be more than the cost of capital. So, this is a rate of return r and this is our cost of capital, and cost of capital is nothing but the expectation of the investors from the company. So, company should be putting money more than in a particular project, which would offer a return, have expected zone of return more than what the investors expect out of this company when they finance the company as such.

So, in fact, if r is equal to k, then the investors record are return is maintained actually, but it is always better that r should be more than k. So, if there are multiple projects to invest, in that case the company should go for that project where this particular period is higher, that means r should be as much more than the k as such. So, that is called the rational investment decision making and whenever r is more than k, in your capital investment decision making, we use a tool called net present value or NPV.

So, in case of NPV, we see that NPV is going to positive, then we further go for a particular project and NPV project is positive only when the r is more than k. So, that is one of the rational expected, rational behaviors of managers in a particular company. So, that is one and second thing is that management must be candid with its share holders that means management must be willing to share as much information with the share holders that should not be hiding any information from the share holders and stake holders. Unless the information there must strategic in nature, where it can do harm to the company, having a strategic advantages, a certain secrets may not be shared as unless that is the case, otherwise the information should be shared.

In fact, information asymmetry should be the list, as the market expects as such, should not be that somebody has an advantage of as far as the information of the company is also concerned. So, in any case, the company's management should be willing to share as much information with the prospective or existing share holders

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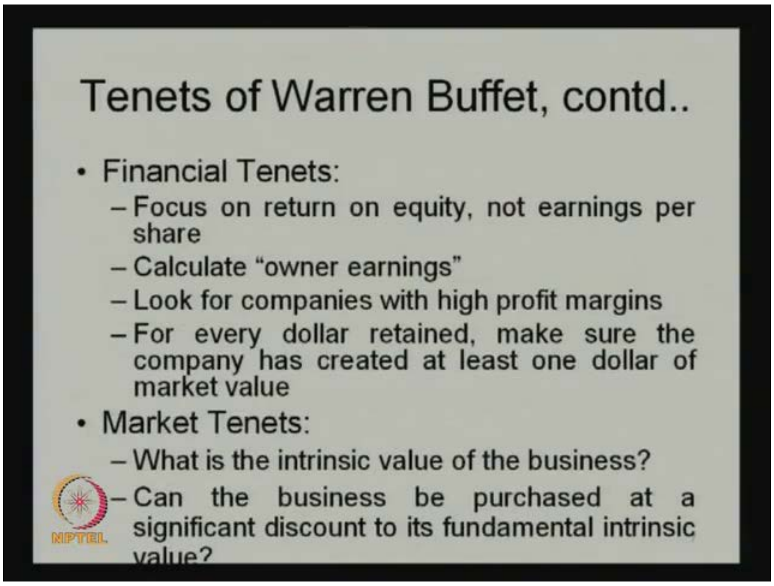

The the next part of tenet is called financial tenets, in financial tenets, the authorize advice that one should focus on return on equity, but not earnings per share, because earnings per share itself can have different meaning, in way that, earnings per share itself may not be comparable.

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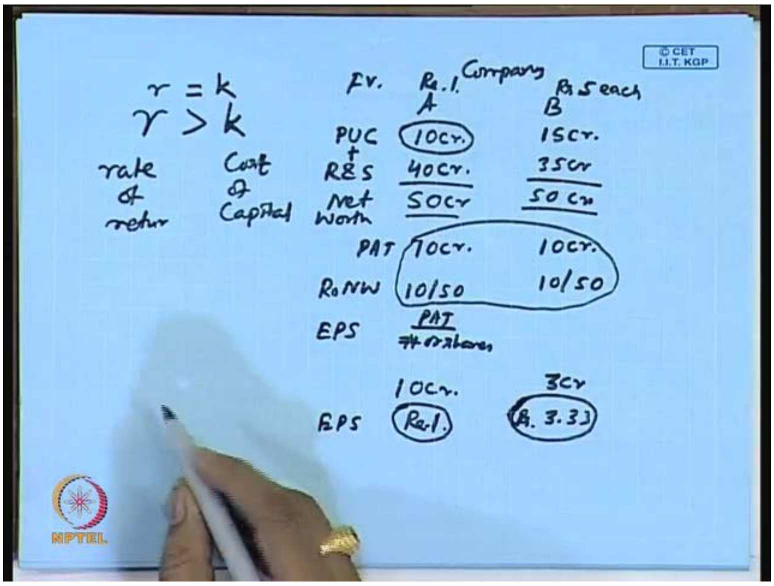

We can take a small example, may be there is a company A and there is a company B, and let us say, the paid up capital of this particular company PUC, we say is 10 crore, and in this case also it is let us say 15 crore and the reserves and surplus of particular company let us say 40 crore in this case and in this case let us say it is 35 crores. So, if you look at both, the company have a net worth of 50 crore, so this is, its paid up capital plus it is a surplus gives us net worth. So, both the companies are having a net worth of 50 crore, so company A is having let say 10 crore rupees of profit during this year and company B is having a profit of also 10 crore, in profit, so if you compare this two companies, see if you look at return on net worth, then 10 by 50 and 10 by 50 is actually one and same.

So, the none of the neither company b nor company a has an advantage over or a better performance over the other company, but, whereas, if you look at this is could return net worth and if you look at earnings per share, earnings per share is nothing but the profit after tax that we have here, profit after tax divided by number of shares.

Now, let us presume that this particular company A has shares of face value of share is rupee 1, whereas, this particular company has face value of share of rupees 5 each. Now, if this is the case, this particular company has a number of shares will be 10 crore, whereas this company will have number shares 15 crore by 5, it becomes now 3 crore.

So, what happens here, if you go for earnings per share, this company is having 10 crore profit after tax and 10 crore number of shares, then it becomes rupee 1, whereas this company has also 10 crore profit after tax, but number of shares is 3 crore, because the number of the face value share is 5, so 15 by 5 comes to 3 crore number of shares. So, 10 by 3 comes to now 3.33, so rupees 3.33. So, if you look at this, obviously this company company B is in and looks like to an ad's over company A and because it is having a higher earnings per share.

So, that is something if you compare, it'll may be misleading, although both the companies have done in the same performance, they have made they made a profit of 10 crore and the overall equity investment of 50 crores, so that is why in example where you can say earnings per share itself can be actually misleading.

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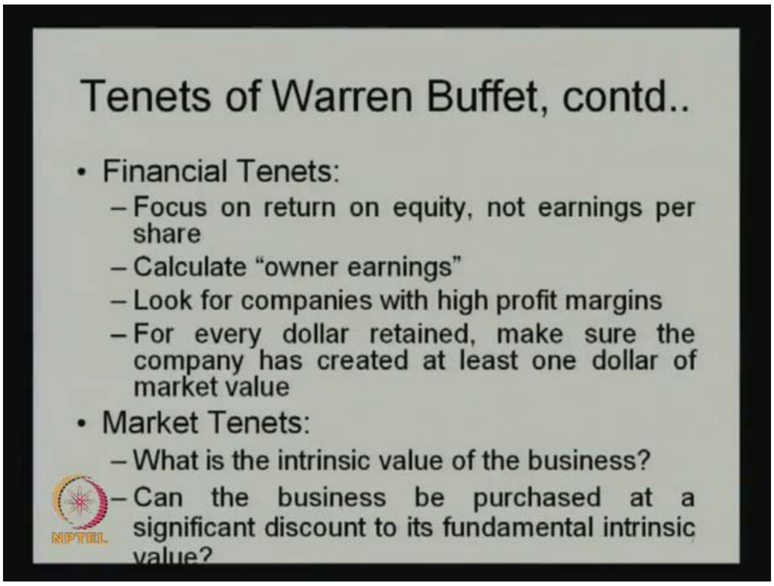

So, next, we go to something like, we have to go for something like calculate owners earnings. So, how how much the owners is actually making earnings a as per investment the committee is concerned, in terms of may be dividend and in terms of the capital appreciation that has to be also looked at.

Then, obviously they quite natural that one has to look for companies, which have a high profit margin, because that is one the things, once should have high profit margin, then you have better ability to take care of other expectation. Let say the operating profit is high, then from that profit one can pay the interest, pay the then pay tax, can be paid then adequate money, would be there to declare reserves and surplus or to declare, sorry to declare dividend.

And good amount of profit can also be return in the business and the growth can also happen. So, higher profit margin is always desirable for any company for that matter, it may not be possible to earn that higher profit margin during the initial years, but should be desire for the company to earn as much profit for that matter.

Then, another thing that if there is a reinvestment of any rupee or any dollar, in any company, the company has to ensure that the company creates a value of more than 1. So, what happens, there will be certain, there will be companies which all the companies make profit, when they make the profit, then they may like to declare some of the appropriate as dividend and some of the profit they will retain as there is a retain earnings, so that is automatically invested in growth opportunities.

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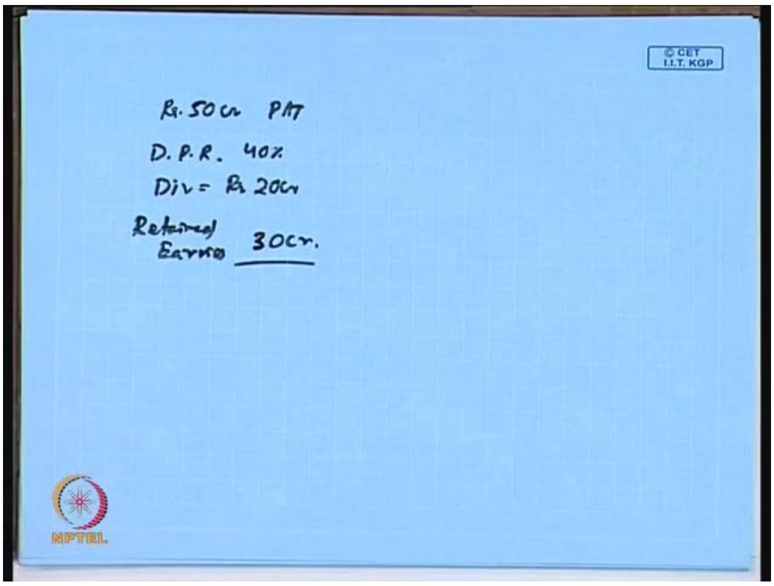

So, if the company has let us say made a profit of 50 crore and the component declares a dividend of 40 percent, so rupees 50 crore is a profit after tax and dividend payout ratio is let us say 40 percent, then the dividend declared will be rupees 20 crore, that is 40 percent of rupees 50 crore. So, retained earnings or earnings retained in this year comes to sixty percent, that is 30 crore. Now, the point is 30 crore has been kept, means the value creation for every 1 rupee or every 1 dollar of this 30 should be creating, should be having, should be enhanced by something more, it should be something more in future as such.

So, 30 crore should actually go up to more than 30 crore in future, it should be something like that, 30 crore itself has actually eroded in the value as such. So, any rupee kept out of the investors money in the retained, should be created, should be magnified more than 1 rupee as such.

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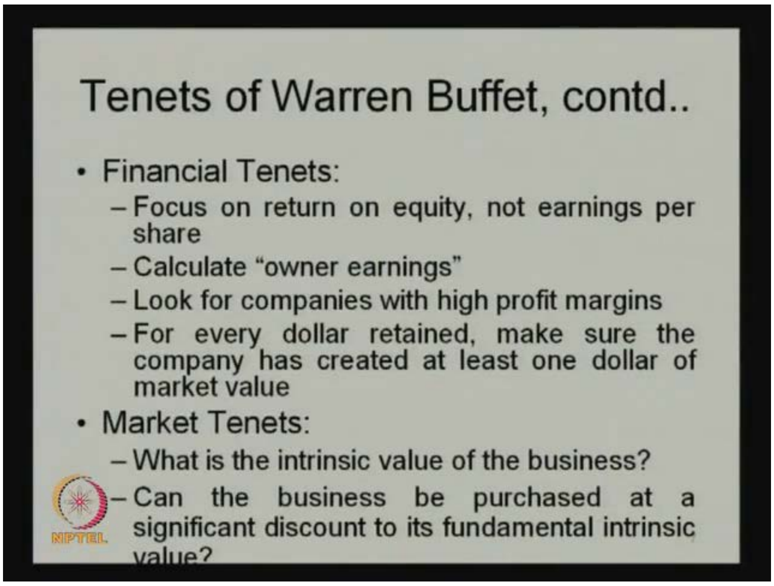

Then, there are certain things like market tenets, when you talk market tenets, you talking about a capital market, point of your stock market, financial market point of view, what is the intrinsic value of the business. So, one has to look at the intrinsic value, make a cash flow estimation, we say intrinsic value, one can look at this free cash flow approach or something like that.

So, we approach a particular method of valuation, one can find the intrinsic value, obviously the intrinsic value is lower, sorry higher than the market prevailing price, it becomes to, it becomes a investment opportunity. If it is lower than that, obviously it should not be investment opportunities, one has to look at that and then, can the business you purchased at a significant discount and it is fundamental intrinsic value.

Obviously, the moment the intrinsic value is more than what is the quoted price in the market, if that is the opportunity to buy the company shares or that price, then obviously, since it is price is lower than intrinsic value, so obviously it becomes an investment choice as much discount to the intrinsic value, the price is quoted, it is always better for the potential investor. So, these are the tenets given by warren buffet.

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Then, we go to the next section of this particular analysis, we talk about the financial analysis and in that we talk about the estimating the intrinsic value with different methods. In fact, in our valuation of shares, we have already discussed about different methods of valuation, we will be just rerunning certain things what you discussed in valuation class, valuation session, then we will look at analyzing financial statements, in fact, this also we have already discussed in our financial statement analysis session.

So, we will be just covering certain ones of those things, then we will go to an important aspect called the red flags in financial reporting. We can see that the several accounting frauds manipulations are taking place, are talking place in the world as such in as different companies, we have seen certain companies have closed down because of this financial manipulation and we have also seen that new new rules have and primers have has come by the regulators to control this particular problem, but anyway this problems can still be there. But, one has to be careful about the figures reported by a particular company in its financial statement and then we will go for certain measures of value addition like EVA and MVA.

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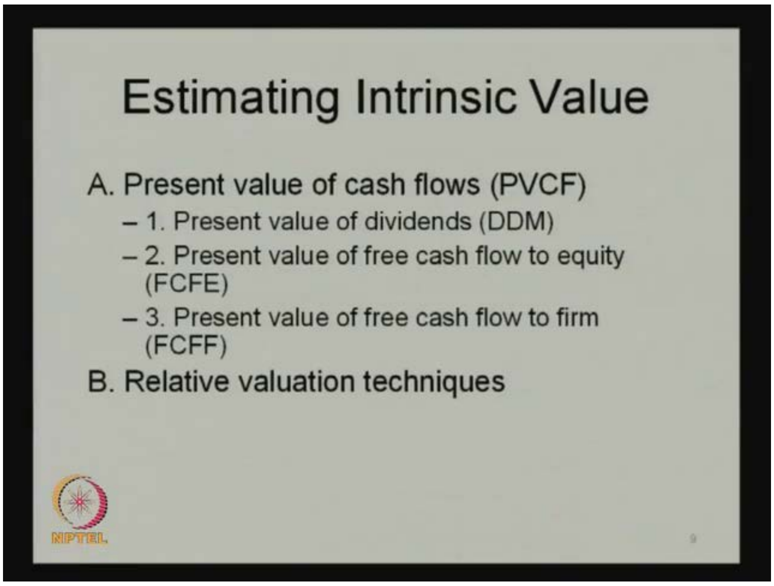

Coming to the first part, that is called the estimating intrinsic value, we have got different methods, in that we have got the present value of cash flow approach. And the present value of cash flow approach, we have got methods like present value of dividends and then we have present value of free cash flow to equity and present value of free cash flow to the firm. When you say present value dividends, whatever is, you have popular dividend discounting model.

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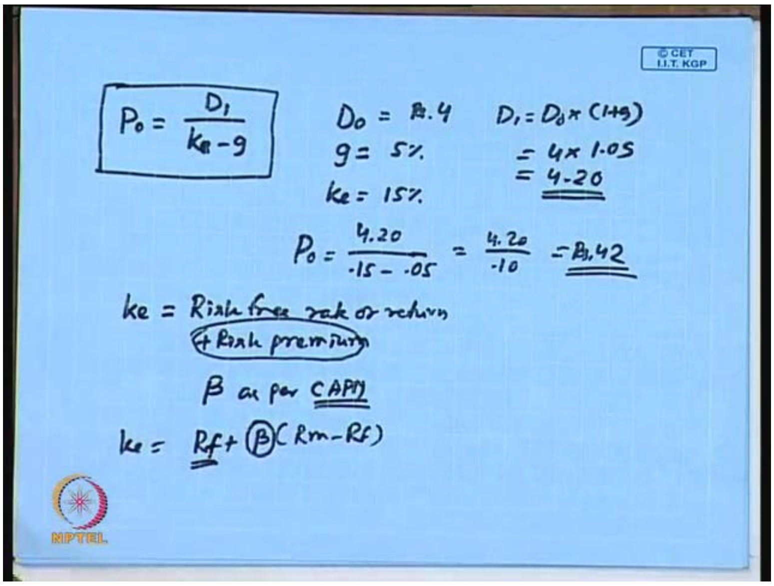

Where we say P P 0 is D 1 divided by k e minus g, now this is the popular dividend discount model valuation. So, the price of a particular share today depends upon the dividend of next year and then the cost of equity, that is investor equity, investors expectations, how much they expects and then g stands for growth rate. We have already discussed these things in our finance in valuation class, but still we can take a small example here. We talk about the dividend, let us say the present dividend of particular company is D 0 and today let us say rupees 4 and let us say the growth in the dividend, and the growth in dividend depends upon the growth in earning, growth in earning depend upon the growth of the company.

So, several things which can affect the growth of the company and then, obviously, the earnings and the growth in dividend, if the dividend growth is expected to be let us say 5 percent and the the cost of equity is let us say 15 percent, then we can find the value of the share as price 0, so dividend one is nothing but dividend 0 into one plus g.

So, that comes to 4 rupees into 1.05, just percent growth, so that comes to 4.20. So, this 4.20 is going to be the expect dividend in the subsequent next year, that is 4.20 D 1 divide by k e is 0.15 minus 0.05, so that gives us 0.4 0.20 by 0.10, that gives rupees 42.

So, this is the method of valuation, where you say that the value of the share applying this particular model is rupees 42. When the dividend today is 4 rupees and expected to increase at 5 percent for all the years to come constant growth model and then it becomes 42 is the present value of the shares. So, if the particular share is available for less than 42, obviously it becomes a investment choice is more than 42, we do not buy that rather if you have the share, we can sell it.

And the question is, when in this model, we talked about there is something called cost of equity, is nothing but expected in return of the equity investors, which depends upon the risk involved in the particular company. And the cost of the equity to has to capture when equity holder is expecting, he is always expecting such thing called risk free rate of return plus any risk premium, some risk premium for the risk involved. Because, equity investment is risky investment and there is this particular risk premium, can be taken care with the help of beta that is as per CAPM, capital method applying CAPM and applying beta one can find the risk premium.

So, that happens here, the cost of equity can be in, the we have the formulas CAPM like CA I s RA plus beta into R m minus R f. So, beta is taking care of the risk and the higher is the beta, higher is the risk and higher is the risk means, higher is the reward for the investor as such. So, this in a way it is taking care of the risk as such, so risk free, that is like the government bond treasury bill, there is some investment, where you get minimum rate of return, without any risk involved you have assured of that particular return.

Second that, what you have is the risk premium and so risk premium plus risk free return, that is the investors expected of return. So, the risk premium obviously depends upon the company’s risk, if the company is in more risky business, obviously the beta can be reflecting that particular aspect as such, this is the way one can apply.

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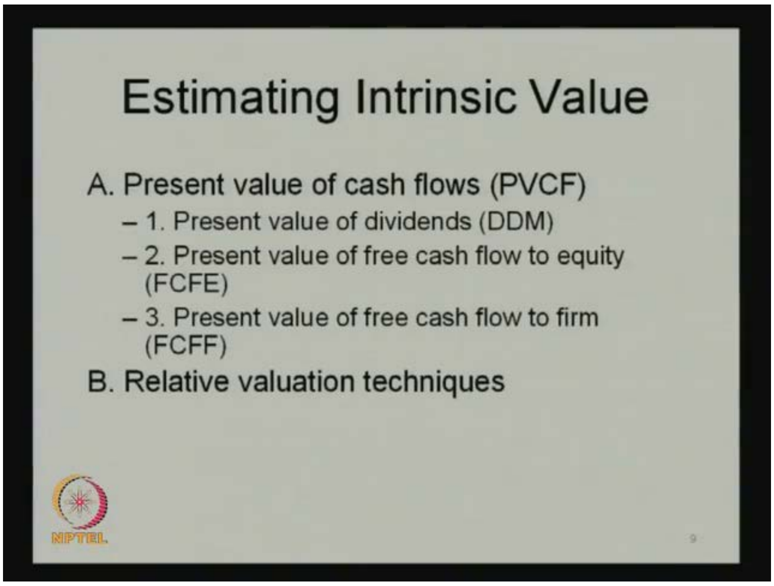

And then the next method that we have is the present value of free cash flow to equity. So, in this case, instead of using a dividend as the factor, we can use something called free cash flow to equity, when you say free cash flow to equity, it is very simple to find out, it is like we have profit after tax.

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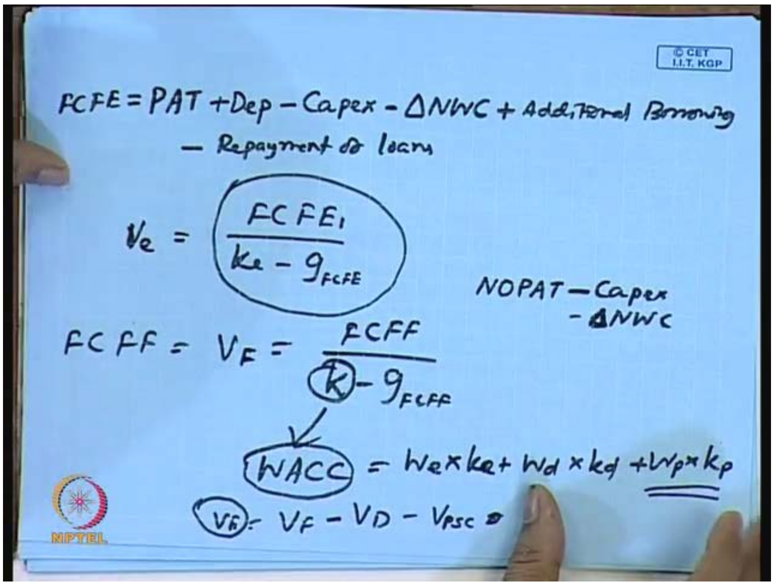

And this is the profit earned by a particular company during a year and how much of this profit is in terms of, we have is available freely for the investment also cash. One in one thing is that before finding the profit after tax, that depreciation is already deducted, because depreciation is something where tax deductible be expense.

Once you deduct depreciation, you can your profit become slower and you will end up paying lesser tax, but depreciation does not involve only cash flow, so we add along the depreciation. So, this is the profit in terms of cash available for the equity investor, then from that there will be even expansion requirement, so there could be capex or investment fixed assets, then there could be some working capital investment, networking capital investment.

So, whatever the change in working capital is either delta networking capital that could be there, then the company may go for some additional borrowing, because that will also be available for investment or whatever and then the company can also go for something like repayment of loans.

So, having all those things together that gives us the free cash flow to equity, so instead of taking dividend as the denominator, now what happens if value of a particular company equity is now free cash flow, let us say 1 divided by k e minus growth and the growth is expected growth rate in FCFE, it is not in dividend, so whatever. So, this is a model, in fact we can have this is a model, which assume that the company's free cash flow equity is going to grow at a particular percent, it particular percent for all the time to come.

But there can be situation that the growth of a particular free cash flow equity can be higher for a particular phase, it may be little little moderate, then it may go to constant face. So, we can apply multi stage growth model that we have discussed already in our valuation class, so this is one approach. Then we have another approach called the free cash flow to the firm and there we find the value of the firm and and there we go for free cash flow for the firm here and then we go for the k minus g, g in FCFF and the k is nothing but weighted average cost of capital.

Which if there is company has two sources of finance, then average cost, what is average cost of let us say equity and date, then it becomes like this, W e is weight of equity in the cost of equity, plus W d into cost of date, that is weight of date into cost of date, that is weighted average cost of capital and instead of FCFE. We have FCFF, which is the cash flow available for all the investors, that is why the required rate of return is taken here is that. The overall investor expected rate of return, which is known as weighted average cost of capital, which is a weighted average of the two components of finance like equity and date. There is, we are assuming like that, if you multiple other cost of preference share, one can add this also W p that is weight of preference share into cost of preference share capital.

So, this could be another way and how FCFF is derived is nothing but we have got NOPAT, net operating profit after tax, then we will have those capex, that is required and there could be change in networking capital and other adjustment could be there. So, from the firm's point of view how much cash flow is actually going to be there, that is the free cash flow for the firm. Once you have the value of the firm as far as free cash flow approach, then one can find out the value of equity by finding out the value of firm minus value of any debt and primary value of preference share is there. Now, we have discussed the value of, value of preference share capital, so that gives us the value of equity. So, this is an indirect approach, this indirect approach to find the values of value of equity, so these are the cash flow based measures.

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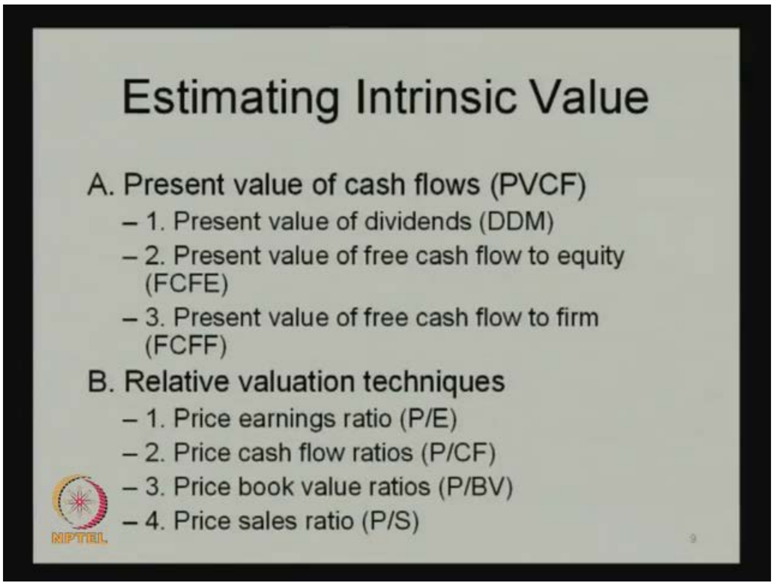

Then, we have relative valuation measure, we will talk comparing with other companies or may be industry or may be index, we find out the previous there, the valuation measures. We have something called price earnings ratio, the price to earnings per share, then you have got price to cash flow, then you have price to book value, then price to sales ratio. What happens, in this case, one will look at the price earnings ratio, let say if you take an example, then you will find out the price earnings ratio of different companies in that sector or may be in the part of index.

And comparing that we will find an average and if your target company is, the company that you are analyze, the price earnings ratio is lower than that, then obviously it will become as a better investment opportunity. So, lower p ratio compared to the benchmark, P ratio is an investment opportunity to buy and similarly, the higher P ratio are compared to the benchmark, benchmark P ratio will become as a indication to sell as such. So, that is one, similarly for other ratios is like same rule can be applied for price to cash flow, price to book value, as well as price to sales per share.

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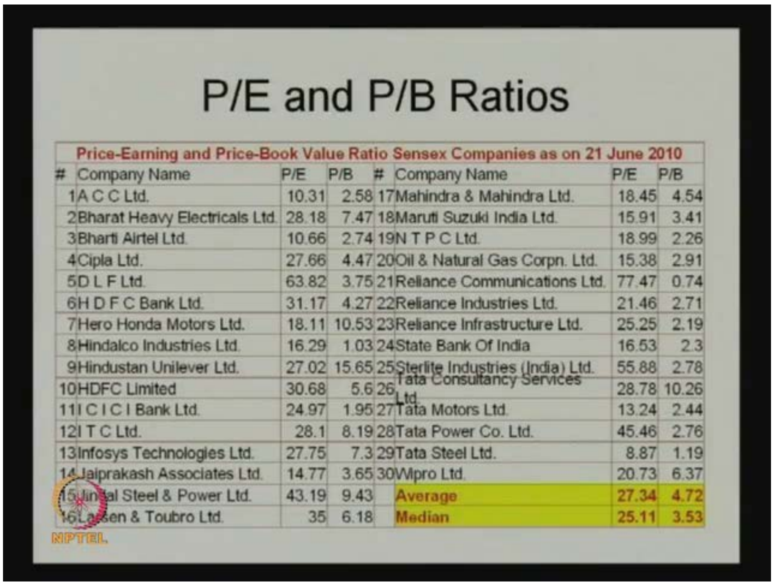

P/E and P/B Ratios

Price-Earning and Price-Book Value Ratio Sensex Companies as on 21 June 2010

#	Company Name	P/E	P/B	#	Company Name	P/E	P/B
1	A C C Ltd.	10.31	2.58	17	Mahindra & Mahindra Ltd.	18.45	4.54
2	Bharat Heavy Electricals Ltd.	28.18	7.47	18	Maruti Suzuki India Ltd.	15.91	3.41
3	Bharti Airtel Ltd.	10.66	2.74	19	N T P C Ltd.	18.99	2.26
4	Cipla Ltd.	27.66	4.47	20	Oil & Natural Gas Corpn. Ltd.	15.38	2.91
5	D L F Ltd.	63.82	3.75	21	Reliance Communications Ltd.	77.47	0.74
6	H D F C Bank Ltd.	31.17	4.27	22	Reliance Industries Ltd.	21.46	2.71
7	Hero Honda Motors Ltd.	18.11	10.53	23	Reliance Infrastructure Ltd.	25.25	2.19
8	Hindalco Industries Ltd.	16.29	1.03	24	State Bank Of India	16.53	2.3
9	Hindustan Unilever Ltd.	27.02	15.65	25	Sterlite Industries (India) Ltd.	55.88	2.78
10	HDFC Limited	30.68	5.6	26	Tata Consultancy Services Ltd.	28.78	10.26
11	I C I C I Bank Ltd.	24.97	1.95	27	Tata Motors Ltd.	13.24	2.44
12	I T C Ltd.	28.1	8.19	28	Tata Power Co. Ltd.	45.46	2.76
13	Infosys Technologies Ltd.	27.75	7.3	29	Tata Steel Ltd.	8.87	1.19
14	Jaiprakash Associates Ltd.	14.77	3.65	30	Wipro Ltd.	20.73	6.37
15	Jindal Steel & Power Ltd.	43.19	9.43		Average	27.34	4.72
16	Larsen & Toubro Ltd.	35	6.18		Median	25.11	3.53

Then, we can have an example here, is here, we have taken the price earnings ratio and price to book value ratio of sensex based companies as on 21 june 2010, this is on a single day. So, obviously, it may have certain problems, that because than that particular day 21 may be the market, may be boom being or may be the price of the shares, may be very high or very low.

So, is better, will be the take the average share price and divide earnings per share book value per share, but in this and for an example we have taken this and we see here the price earnings ratio of different companies like 10.31 ACC like that, 45.46 for Tata power company and we have got the average of 27.34 and median is 25.11, 4.72 and 3.53 is price to book value ratio.

So, anything, let us say if median is our benchmark, then any ratio like 4.54 or 10.25 in case of TCS which is more than 3.53, could be something that is overvalued and similarly lower than 3.53, could be taken as undervalued.

Similarly, case of average and is a in case of price earnings ratio, but there is one limitation of this approach could be there, in this particular chart, we have come we have taken a company's from different sector, you can look at that companies like Infosys, which has got a very high price to book value ratio like 7.3.

Similarly, TCS has a 10.26, so possibly one can find out these ratios for a particular industry and then make a comparison whether and then find out the particular target companies undervalued or overvalued. In fact, average of this particular value like PE or PV ratio for a particular industry can be used as a proxy for valuing a company, which is not listed or valuing a share of particular company which is actually not listed. So, that is another approach, indirect approach to find the value of particular share, which is not traded in the market.

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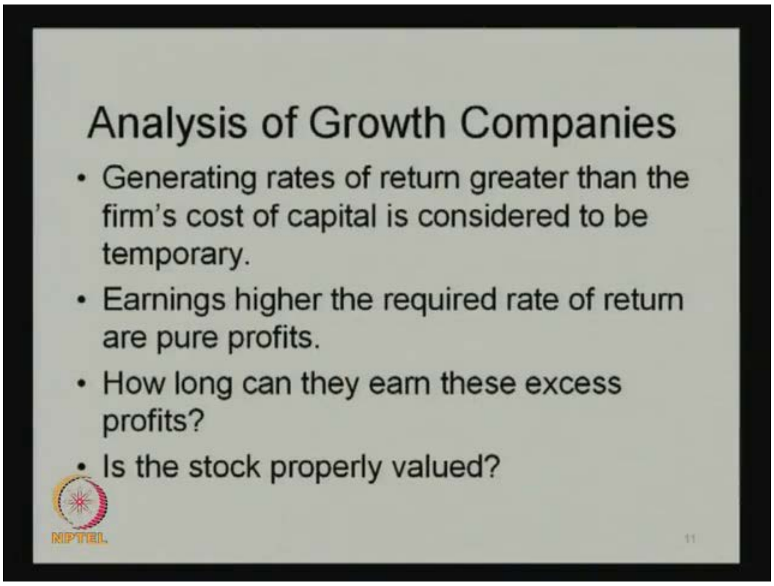

Next, we move on to how do you go about the analyze a growth companies. When you say growth companies, we say that it has it has a rate of return more than the cost of capital and so that means, k r is more than k and but it could be possible that this could be a temporary in nature, so that means that which cannot be overall by that.

Then, next thing, earnings higher required rate of return are pure profit's, so company any earnings more than the required rate of return is actually the pure profit or you can say it is an economic profit of a particular company. Then, another thing one has to look at is how long this particular excess profit will be sustained, if it is going to sustain for a longer period of time is always good, it is a sustained for a very limited period that means it may not be actually growth company, it may be for a certain period is showing a growth, but ultimately it will may go stabilization face very quickly.

So, that also has to also look at. Then, another thing is, we look at if the stock what you have valued is properly valued or not, if you have to properly not valued, then you have to go for alternative methods. And then, find out an obviously intrinsic value is more than the present market price and then it is an investment opportunity.

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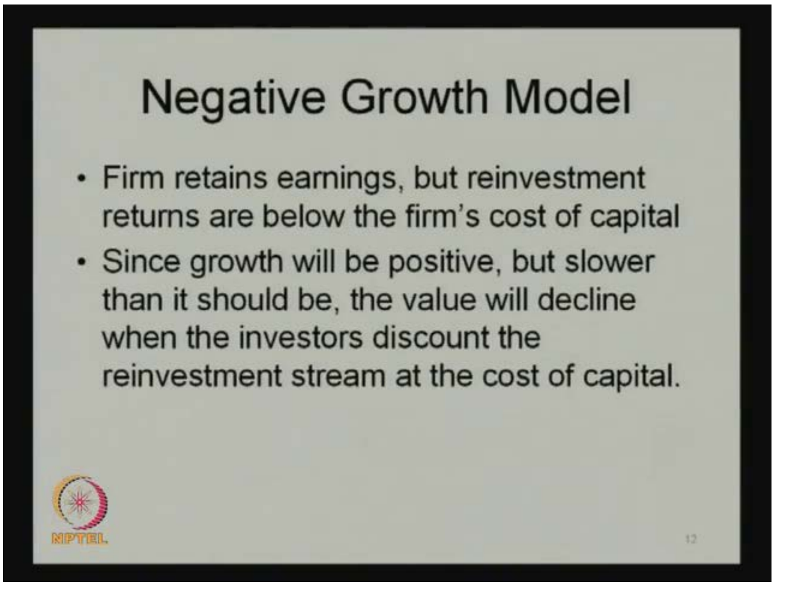

Then, we have certain companies, which may also have negative growth, one has to be little careful about that. What happens in case, certain companies in the early stages of growth the company returns all the earnings, but reinvestment return may not be that high, it may actually be lesser than the cost of capital, in that case, the growth could be actually negative or growth could be very much minimal as such, ok.

So, or it will be positive, but slower than what it should be, then the value is like to decline after certain point of time, but one has to look at the particular period of time, the growth may be lower or may be negative, but it may actually go up in subsequent period of time. So, one has to look at a higher, greater investment arisen and put the valuation of, find the valuation of shares of the company appropriately.

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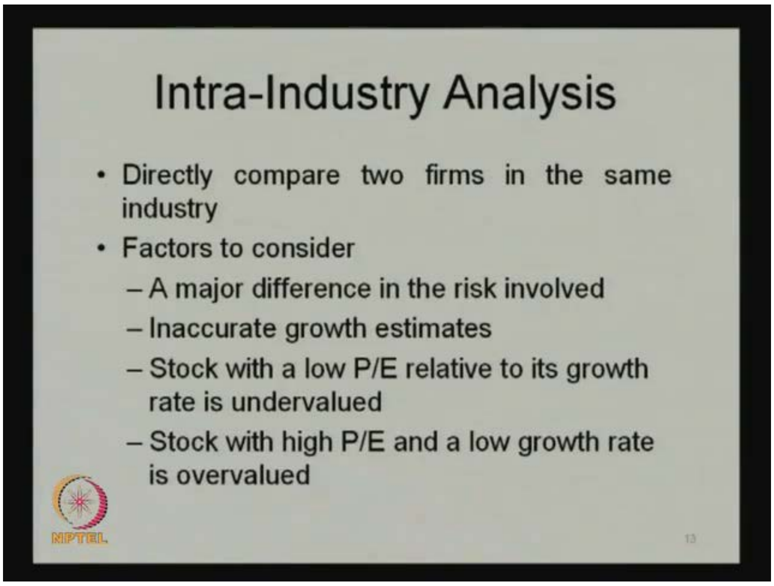

Then, before, after doing all these valuation, as you discuss in the PE ratio and PV ratio, we talk about, one has to look at in industry which are the company is a good or a bad and so, you can compare two firm's in this same industry, is always better instead of comparing two firms in different industry.

And when you compare the industry, in two firms in industry, one has to look at what are the difference risks these companies are involved, what are the different, either any inaccurate growth estimates for those companies or accurate growth estimates is there, one has to look over the accurate growth estimates. Then, there could be stock with a low PE relative to its growth rate, which is actually taken as the under valued, so actually the company is have got higher growth opportunities what the PE ratio does not reflect that. So, one can go for price earnings to grow there and the p is the ratio and find out and that could be indicated that it is an under valued. Similarly, stock having a high PE, but low growth ratio could actually even overvalued. So, like that applying this certain measures, we can compare different companies in a particular industry.

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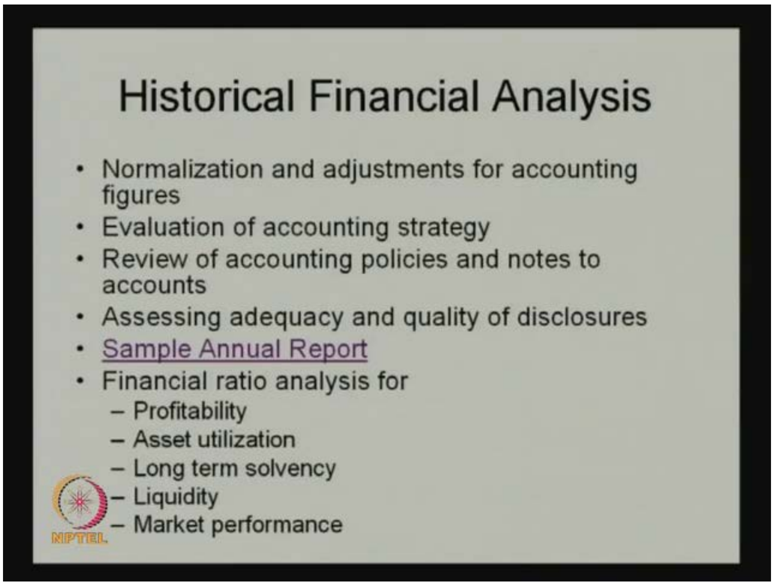

Then, we go to the next part of our financial analysis called historical financial analysis, where you discuss, for you consider the financial statement prepared by the companies from year to year and present in terms of annual report, at they declare and quarterly results also. So, looking at those figures what are the things that we can find out and there are also we will look at what are different frauds, different accounting manipulation is possible. And what will be the mechanism for the analyst to look for those manipulations; is there any problem in the financial statement or financial reports, we will look at; we will have a look at that. So, the first thing that we have is any historical financial analysis, one is called normalization and adjustments for accounting figures.

What happens, certain accounting policies are there, which are allowed to be different for different companies, company can choose a difference between different methods of valuation, different methods like inventory valuation, different methods depreciation. So, certain subjectivity could be there in preparation of financial statements, so if it is allowed, is not illegal as such and is allowed by this system. So, if that is the case, if you find out it is better that we normalize them and then we make them comparable.

Another thing we can see that certain companies may extend their financial reporting period may be by 6 month, so they may be preparing a report for 18 months, where as the other companies, comparable companies could be preparing reports, will be a reports or figures will be there for 12 months.

So; obviously, this 18 months financial statement that you have has to be now recast in terms of 12 months, then it becomes actually comparable. So, this normalization has to be done before we end and go for financial analyze, because on its own analyzing final statement could be there, but the any figure that we find out by analyzing a final statement has to be compared with the corresponding figure of the industry or some other peer group company. So, for that, one has to do the normalization of financial statements.

Then one has to look at the evaluation accounting strategy, one can look at the notes to accounts, significant accounting policies and the company may follow different accounting strategy, because again different accounting methods could be allowed. Like for instance, we use to have in consolidation of statements and or in case of mergers acquisition cases and final statements, have to prepare for a combined entity.

We can have something like pulling method or purchase method, and both the methods may be advantageous for under different circumstances. So, that could be an accounting strategy of the particular company and then company may intend to show good profit or good asset, whatever, that some good financial parameters it may choose one of them. But, in fact, the things have become little stringent, so company may not have that much leeway in choosing the accounting methods, but there would be certain scope for the company should choose for account status.

So, one has to look at those things, which will be disclose more in footnotes and accounting that disclosures or accounting policies than in the financial figures that in terms of that is available in final statements, like balance sheet, income statement or cash flow statement.

Then one has to look at, as you discussed, one has to look at the review of accounting policies and notes to accounts, because accounting policies in terms of like revenue recognition, expense recognition, what, how we treat as contingent liability, all those things can differ from company to company in a particular industry also. So, one has to look at if they are having a certain accounting policy, which is totally a away from what is the industry practices.

So, in that case, the one has to be very careful about the interpreting financial results, such company, then one has to also look at how much disclose is this company is making, what is adequate, have they making adequate disclosure, the companies quote the extent of disclosing risk. That is management, any contingent liability, is there any problems with the company for that matter, any governance problem, particularly governance structure for that matter, any environmental law that they are they have following or not, all those thing certain companies go for mandatory disclosure, because the regulation provide as per that.

Another thing is that, company is always go for voluntary disclosure, so what type of disclosure they are making, what type of quality of the disclosure, is not disclosure should not be something like that, because the regulations say that is why we are disclosing certain things and just complying the rules, it should be something coming from the company, is management own whether the rules or there are not. The company is always likely to, always going to disclose as much, there are certain companies which disclose a lot about their companies performance, the inside story history, all those things they disclose, that is another indication that companies how well it is governed also.

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So, we can look at the sample annual report here, in Infosys. As we discussed, we can here, we have certain the finance statements of this company, where we have got the abridged finance statement of this company, we have got the balance sheet here, the liabilities, then we have got the assets, then we have the income statement of this particular company Infosys for the latest year 2009, 2010.

And there we have, so you can see here the abridged cash flow statement, then we have the notes to the abridged. What are the different notes they are following? The company over view, then they are talking about notes and accounts for different accounting rules they are following, they are talking about related party transaction, they are talking about quantitative details.

Then, we have the capital commitment, the contingent liability, contingent liability is something which is not reflected in the balance sheet as a part of liability, whereas taken as a foot note, because this liability can happen depending upon certain things happening or that it can occur when a certain things happening or not happening, so that is the contingent liability. And similarly, the company has got the consolidated statement also and there are certain, one can have a look at these statements, so which is say consolidated cash flow statement, like the company has also as company consolidated balance sheet income statement.

And we have another hand, as we have discussed, there are significant accounting policies and notes to account also are provided here and there are different schedules, because it might be possible for company to disclose everything about the financial figure in a detail in a balance sheet.

So, the expanded notes are given in terms of schedules, as such like fixed assets you can see here, that will disclosure about the goodwill, building, plant, machinery, computer, what was the previous year's figure, how much has been acquired, how much has been deleted, how much has been impaired, retired and then we have got the new figures and what is the accumulated depreciation. So, like that all these disclosures are there in the company also, this particular company Infosys suppose to be disclosing a good amount, this is a one of the company in India, which discloses a lot as a voluntary disclosure, if you prepare an index of that is going to suppose to be higher in this company.

So, you can see here the company has significant accounting policies, like what is the basis of preparation finance statement, are they following accrual basis and what are the if an account is standards, they are following. What is the use of estimates, then what could be the revenue recognition policy, so all those revenue recognition that is one of the very important accounting principles, how they recognize the revenue for a particular year, so these are the way one can look at and find out what these companies are following as such in the different disclosure norms and harm.

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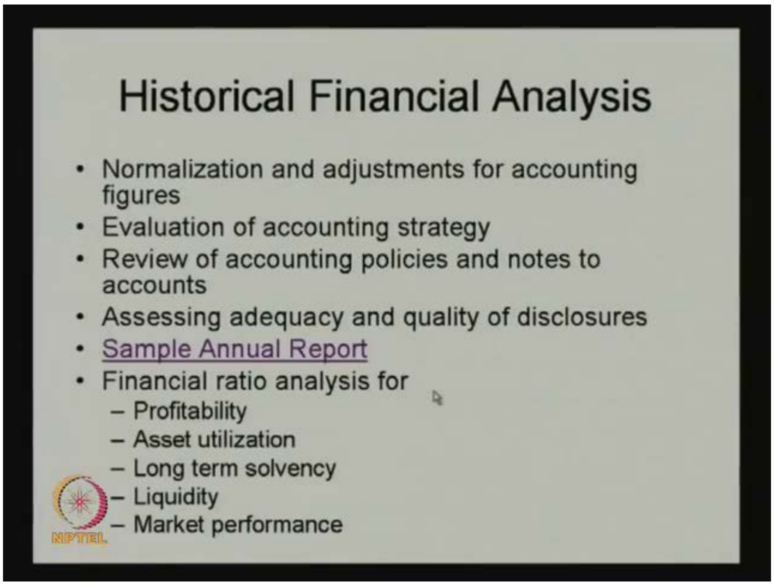

Then, one can use this figures in financial statement as a financial statement analysis and for that we can adopt a ratio analysis as beside other techniques, which we have already discussed in the previous session, one of the session of financial statement analysis. And in this, we actually talk about five types of major aspects, the first one is profitability, where talk about the profitability in terms of the revenue generator, like debt profit margin, operating profit margin, gross profit margin, like that how much profit they are creating relation to sales.

Then, profitable relation to investment, like profit related to equity investment, profit related to total capital employed, like return on investment, then on capital employed return on net worth return on equity, earnings per share, all those things can be also found out, compared for different companies and you can decide about the company is doing good or not.

Then, one can look at the next aspect, is asset utilization, how efficient the assets are utilized by the company, typically what happened, asset utilization we keep the revenue in the numerator.

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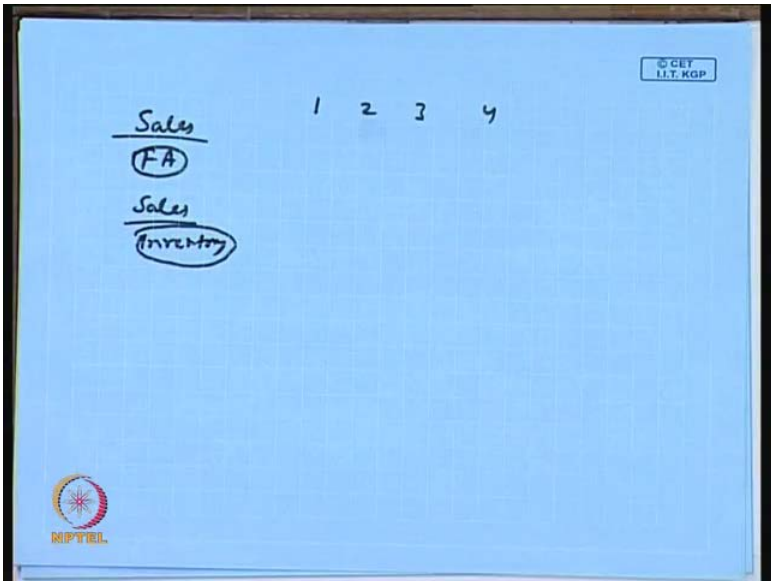

Like sales and divide by let say assets like fixed assets, sales divided by let say inventory, so that talks about how efficient is this particular inventory as been utilized. How efficient this particular fixed asset has been utilized by this company and what the strained in this ratio over a period is of time from year 1, 2, 3 like that. So, the if the ratio is increasing, obviously it is a good because the companies efficiently utilized, see this is the resource of the company as such.

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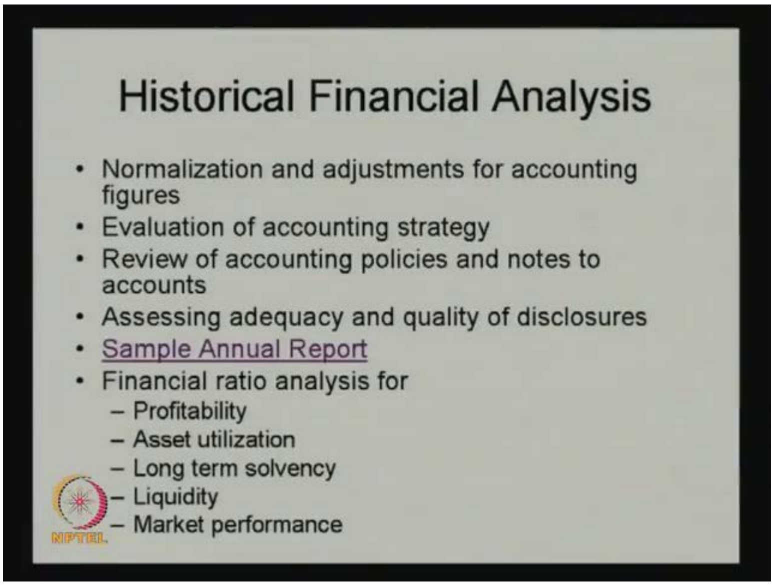

Then, we have got long term solvency, you talk about how solvent is the company to meet the long term comments or dates, like you where you talk about date equity ratio. We talk about interest coverage ratio, because if they are not taken care, then obviously, the equity holders expectations may not be able to, an a company may not able to take care as such.

Then, we will look look at the liquidity in the initial liquidity, we talk about is that how to liquidize the particular company, how well this company can actually honor the commitment, the short term commitments is short term current liability. So, company should have adequate current asset in terms of cash and cash, it could be another assets to make to pay for the short term liabilities. And then, next, last thing that you have in this particular category is market performance. What is the performance of the company in the market, like in terms of price earnings ratio, in terms of return on by the investors, over all total share holders return like in terms of dividend as well as the capital appreciation in the market.

So, all those thing price earnings ratio, price to book value ratio, all those things can be also found out the and compared among the companies these are the, so these are the different tools of financial statement analysis.

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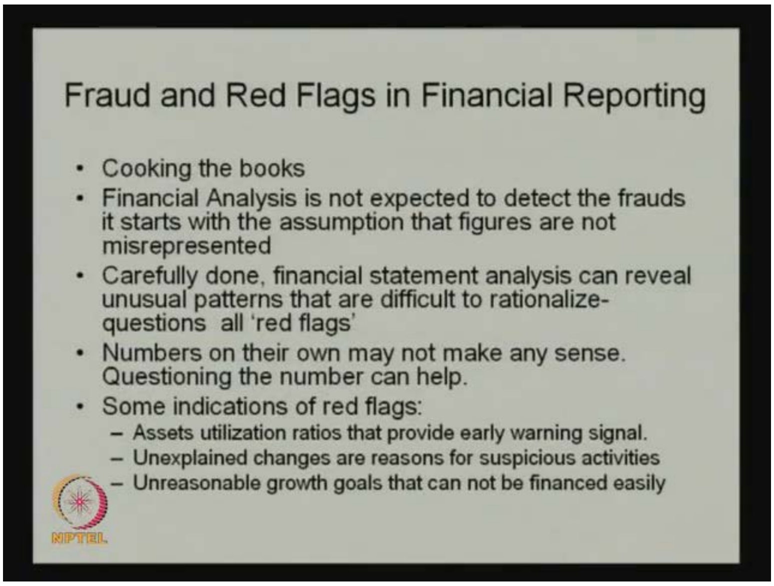

Then, we move to the one of the very pertaining issue this days is the frauds and the red flags in finance reporting, like companies, we have seen different companies have manipulated there financial statement reported in different manner. They have not followed the accounting norms or they have followed in such a manner that we are not able to catch the mistake they have done. Deliberately they have fast the financial statement, so that is something, in any case, financial statement analysis on its own cannot capture the fraud possibly.

But, you can indicate that could be something wrong, because fraud it could be something like intentional, then the finance statement analysis, when you do that, we presume that the figure that has been presented as actually correct, because they have been audited by this statutory auditors, so for the company as so.

So, we have to trust that particular report otherwise cannot go about analyzing financial statement, but there could still be certain manipulations and possibly looking at the figures in detail and figures over period of time. Comparing with others, one can possibly look at that, could be some problems with this financial figures are the company has actually presented.

So, look at, so as you discuss, the companies can cook the books and they can have figures which may be suitable, companies do so profit over, they make actually higher profit and actually they may making losses or lower profit. Certain times the companies also like to show losses to take the advantages of tax seal or something like that and may be certain concession they demand, expect from the government of the system. So, for that they may deliberately also show a lower profit or less may be losses for that matter that could be, we say something, we also know as that something called window dressing of financial statement.

So, then, if you can, one can do that carefully, the financial statement analysis can reveal certain unusual patterns that are difficult to rationalize. So, which will say questions something called all the red flags that is known as the red flags in the financial statement. Then another thing that we have to look at is, numbers on their own may not make any sense, saying companies may had made a profit of this much crore does not make any sense. How much profit the company has made relation to sales, how much profit is there compared to last year, how much profit is there in terms of other peers. So, that makes only sense, otherwise the single figure does not make any sense as such, so in fact, one has to always question the figure itself, even if the figure is good, it should be questioned, that figure is bad, it should also be questioned.

Then certain indications could be there, that if the asset utilization that we discussed sometime back, there could also provide some early warning signal, the asset utilization ratios are unreasonable lower, that means that there may be something problem, I mean unreasonable higher also due to some problem, this could indicate some early warning signal.

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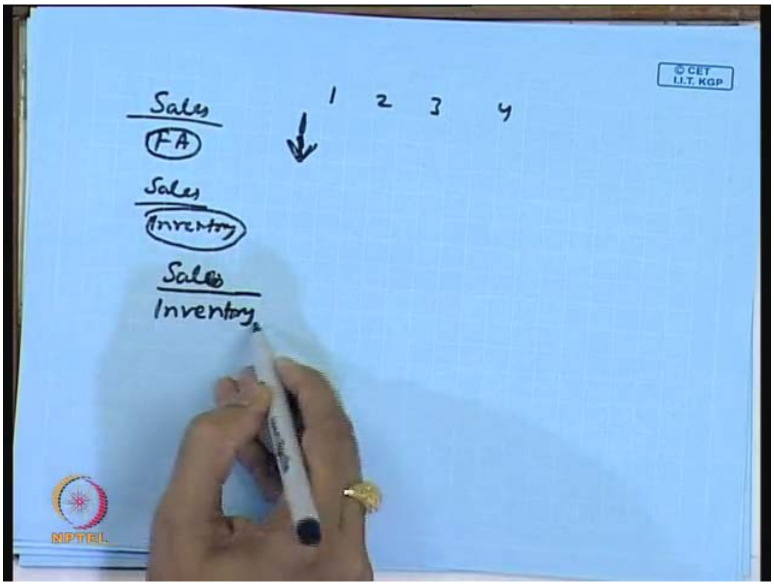

In fact, what you discuss in this one, the sales are fixed assets, if this particular ratio is continuously declining, that means there must something wrong with that. Why this fix at it, could be declined because sales could be lower or it could be declined because fixed assets is becoming higher. The company goes for expansion and investment fixed assets without commensurate increase in the revenue that means the bad sign for the company. Obviously, immediately with the activation of fixed asset revenue may not increase, but once the fixed assets has been invested in, we will expect at least in one or year, one year, two years to come, that sales has to take commensurate with the whatever is increasing in investment fixed assets actually there.

So, this could be another example where where there could be say years, there may be some problem. Similarly, let us say sales by inventory or sales by let us say inventory at the stock, if this particular ratio is increasing or decreasing, let us say decreasing, that means they are having higher inventory to meet the sales or they are having lower sales, they are having more or more an inventory for that matter or inventory is constant, but sales itself is declining. So, that could be, that is means that company is not able to realize or convert this invent into sales with quick succession of time as such.

Then, there could be certain unreasonable, unexpected changes could be there, there may be some accounting changes, they might have change the inventory valuation policy all of a sudden, they might have changed the depreciation method. And all of a sudden without giving a substantial reason for that, because there are certain methods allowed by the companies to adopt and company might have changed that, then there could be unreasonable growth, goals can be there, but there may not be adequate finance to finance the growth, so that so these are the certain indications of something bad may happen in this company.

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Other red flag that we can see, look at financial reporting is that, there as you discuss earlier; there are certain changes in accounting policies and estimates, especially in the bad days. Estimates of contingent liability, estimates of liability for that matter is absolutely lower in a particular bad day or there may be certain accounting policy has changed, because there is certain problems may occur.

So, what they have, they have deliberated, they might have deliberated, try to show a different figure of profit or loss of financial statement just to show the particular environment, particular requirement then. And that is, one has to look at this some significant changes or there is no change that is of course it is good as such.

Then, there could be certain transaction they might have made, which could boost the profit. Certain times what happens, they may book certain revenue by changing certain revenue recognition policy, if they can manipulate certain times, they can boost the revenue by showing higher revenue during the year closing for that matter.

But, actually sales might not have to taken place, so goods might haven't delivered to the customers, but still they may recognize that as a revenue by just tinkering the accounting policy, that is one. So, when we find out the certain increase in the revenue in the particular quarter, would be there in the towards in the particular in the in the period when the accounting period is ending for that matter.

So, just to increase the profit, they may do like that, there may be certain very consistent margin, that means they could messaging the numbers as such, that means very consistent margin could is unlikely. So, because volatility margins expected, very high volatile is also not expected, but certain changes in profit margin like increasing, decreasing is a desirable as such.

It can always be there, it is can be accepted thing, but if this is very much constituent, it may indicate that the company deliberately trying to show a particular profit margin, so which may indicate that there could be certain manipulation expense or reporting of expense or reporting of income for in this company.

Then, there could be unusual increase in debtors and inventories in relation to sales. So, when debtors are going to increase, when the creditors are going to increase, so the company may go for a higher credit period just to leave out the customers to buy their goods and credit, and but actually the realization of the creditors, debtors may not be there, so, that is another thing.

Similarly, company may go for piling of the inventory just doing like that, and,, but there is not corresponding increase in the revenue as such. So, this could be another indication that there could be some problem with this particular company as such. Then, there could be certain reduction in the management cost, like suddenly the regular advertisement cost has been decreased, so that could be another indication. Then, there may be certain times like non operating assets can be sold and one time profit could be there and that itself is increasing the profit.

And then, the earnings per share and everything can also be increasing for that particular period, so in that case what can be done, one can normalize the financial figures by removing this non operating items and find out profit only from the operating items and then compare where across the time period or across the company. So, that could be one of the, as you discuss one has to do normalization or adjustments on our own as an analyst, we should do that.

Then, there could be certain unexplained focus to shift toward non-core business, suddenly we may find that the company is into some other business than what the company is suppose to be doing, then there could be certain significant changes in these different segment revenue, certain segments may be doing very well, certain segments may not be doing very well, because the now we have segment reporting practice, we can as well find it out.

Then, other red flags would be, there like there may be improper method of asset valuation could be there, when they do for revaluation and all, there could be certain very high gap between accounting income and the taxable income. Then there could be something increasing gap between the reported income and cash from operation, that is one of the very important thing that if the profit after reported profit and the cash profit, cash flow is very lot of different, that means the company might have got lot of subjectivity in the accounting policies and financial statements.

Then there could be unexplained write-off could be there, there could be r and d partnership can be there, or more r and d can be there, there may be presence of special purpose vehicles to just to take care of certain activities, and they may be outsourcing to that, and then there could be certain manipulation in terms of special purpose vehicle.

In fact, we can look at the case of Enron, which use to have lot of special purpose vehicles, so that is to have revenue transactions with such SPB’s, which something nonexistence. They use to show that they have made sales to those SP's or SPB's for that matter, who is actually they are not, actually there is no more sales that is happening between this company and this special pervasive.

So, presence of such SPB's and SP's is actually dangerous, as such one of the dangerous signal. There could be a governance structure, it may not be proper, there may not be proper governance, may be board of management is not proper, there may not be adequate representation from the outsiders, independent members may not be there and the ownership and the financial structure may be very complex as such.

So, there could be a lot of cross holding, cross chain holding for that matter, you never know exactly who the promoters of a particular company are, so these are all dubious things could also will be there as such.

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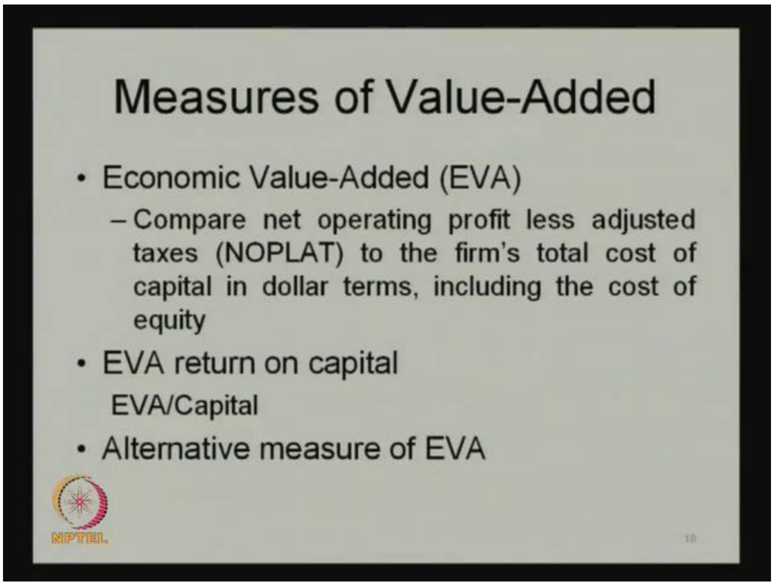

Then, we have got next measures, the popular measures of financial analysis, that is called economic value added and then, when we say economic value added, we talk about that the company has made too profit.

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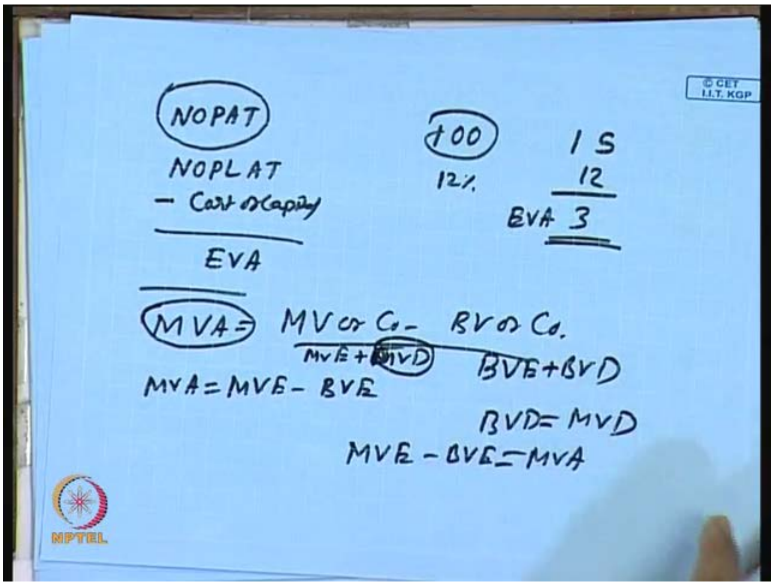

So, these are called NOPLAT, net operating profitable tax, there are certain adjustments done, which suggested by the propounded of this particular EPA, that they are called stone and Stewart and they have given certain accounting adjustments. So, doing the accounting adjustments, the profit we find out, net operating profit after tax or net profit after adjusted as a NOPLAT.

Then from there you take out the cost of capital and then find out that is economy value added, so the capital implied is 100 crore and cost of capital is 12 percent. NOPLAT is let us say 15 crore, so NOPLAT minus cost of capital is 12 percent of 100 crore is 12. So, 3 crore is our EVA, which also known as economy profit. So, once you have, that means the company is earning more than 3 crore, then what the investors expecting as such, so 3 crore EVA. So, any company which is creating an EVA, EVA positive is actually good company for that matter and a higher EVA if you create, that is earning more in terms of profit, more than the cost of capital. Obviously it is going to reflect in a higher market price in that then and then market price will be higher than the book value and this, then you have another concept called market value added F which is nothing but market value of company minus book value of company.

So, once you earn more and more on the investment, obviously the market price is going to increase, value of the company is increased, this is called market, the difference is going to higher, this is called market value of company, is book value of company, is called market value added. And we can also have another short term measures, short cut measures that is market value of equity minus book value of equity, which is net worth can also be taken as MVA.

Where talking, in this case, it is entire firm point of view and this is equity point of view, so MVE minus BE. If you assume that market value of company is like this, market value of equity plus market value of debt. Then, if the market value of single book value of company is book value of equity plus book value of debt, if you assume book value of debt is equal to market value of debt, then it becomes MVE minus BVE is equal to market value of market value added. So, positive EVA companies are actually supposed to be having higher MVA, there is a relationships here.

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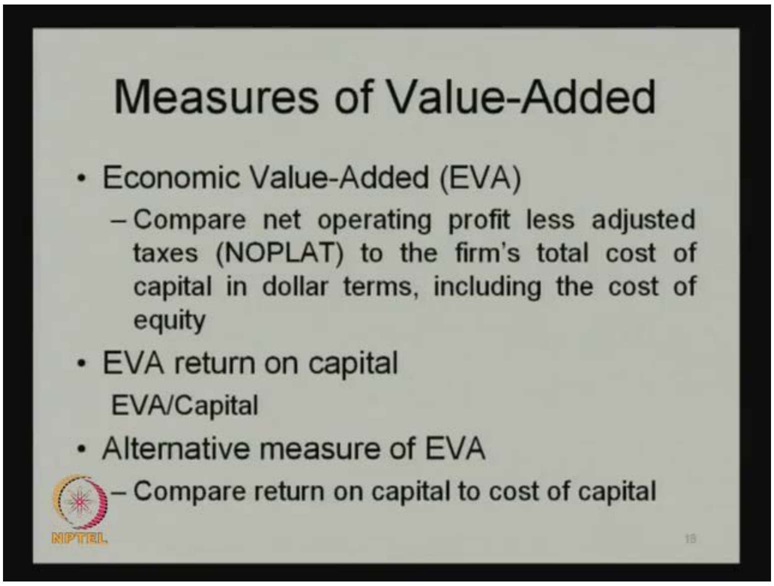

And then, you have alternative measure also, you have in case of cost EVA measurement, where you talk about return on rate of return on minus cost of capital.

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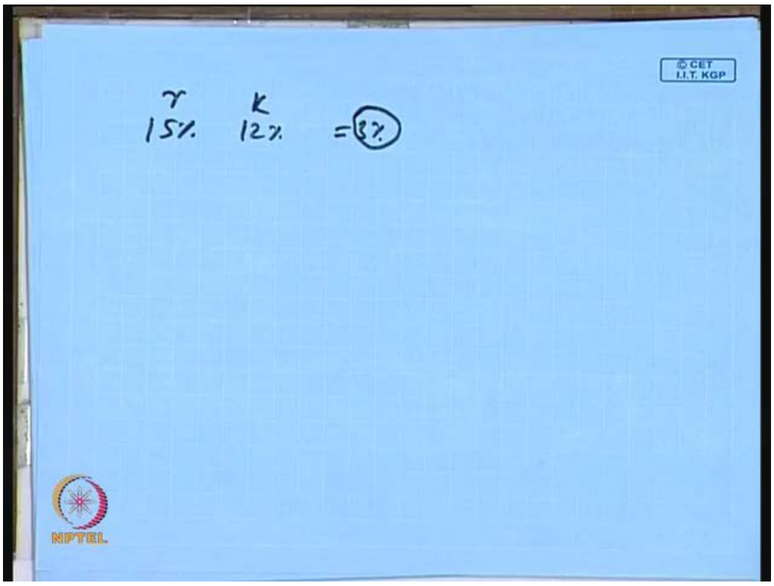

As we discussed in the previous example, 15 percent is the rate of return and cost of capital is let us say 12 percent, so 3 percent in percentage term is the EVA creation.

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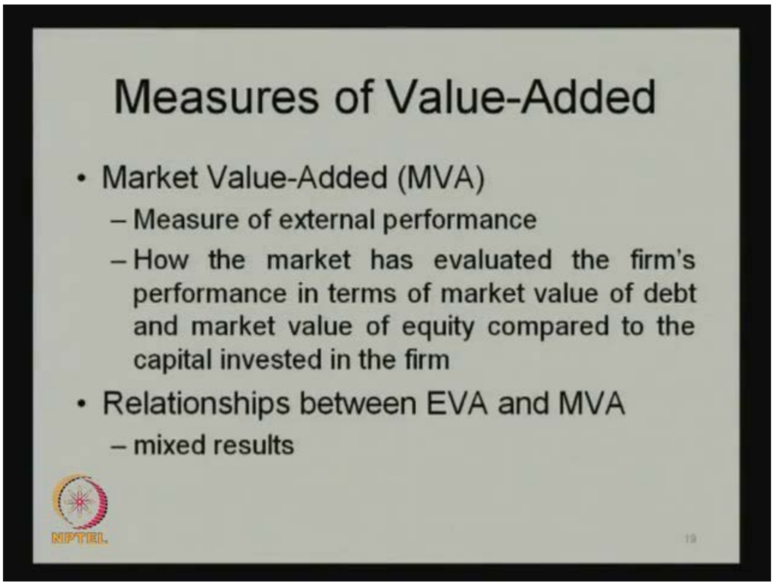

Then, we have the next measure is market value added, as we have discussed and there is always a relationship of an EVA and MVA, there is certain findings are there, which says that yes certain author say, yes there is a positive relationship between the companies having EVA and their MVA. So, MVA is going to hire for those companies which has got higher EVA.

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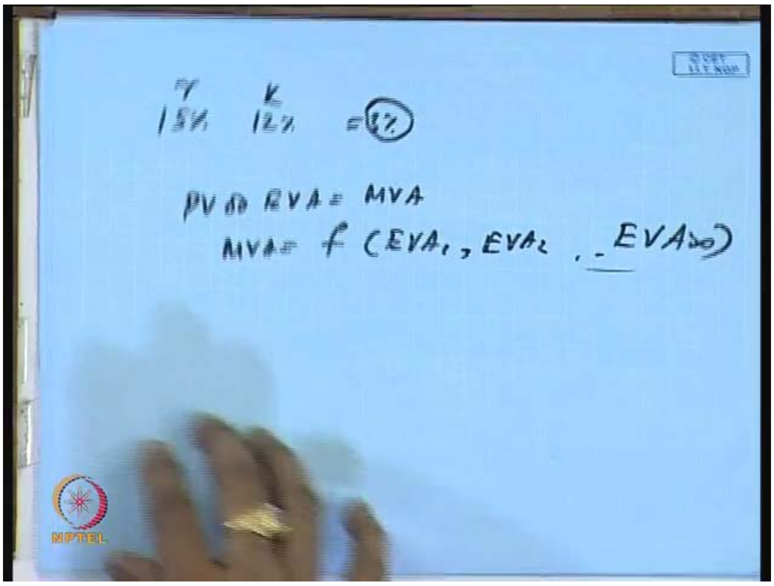

And also there is another theory which talks about that present value of EVA is equal to market value added, so MVA is actually a function of EVA one, EVA two like that up to

EVA infinite. So, there is also another indication, the future EVA is going to drive the MVA particular company today.

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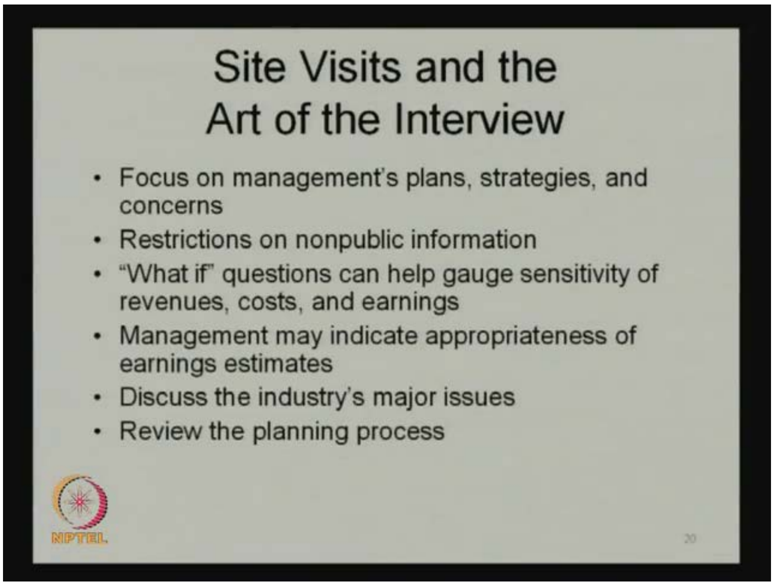

Then another thing that one has to look at in case of company analysis is that, one should try to visit the companies, seek as much information, ask as many questions to the management which are actually may not be comfortable for the management to answer, but that should be there side visits has to be there.

So, like that one can look at the companies and find out different aspects of the particular company and then another thing that one has to look at is the in case of stock valuation, because there are different companies across the world.

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So, one has to look at the, look at the global company and stock analysis can be looked at, where you say that certain things one has to consider is the data available to the different companies in different countries. The companies may have different accounting conventions one has to made, one has one may have to make some accounting adjustments, certain accounting and normalization could be there. There could be certain currency differences also and the figures may report in different currency, then has to adjustments has to be there.

The company may have got different countries may have different political risk also, the transaction cost can also be there, that if you are investing in another company, in other country, there could be certain transaction cost involved there and brokerage cost can also be there and can participate you know that cost also has to be looked at. So, all those things we have to look at and there could be certain valuation differences there also, because the country just takes around the policies could be different. So, these are the things one has to look at as far as the analysis of companies in different countries is concerned.

So, this is the way we discussed in our EI's analysis. The conclusion we started with the economy analysis, then we went to industry analysis, then we talked about company analysis and the company analysis. Both the sessions we talked about strategy analysis and financial analysis and we are also talked about the different accounting frauds and manipulations are the red flags could be there, which can be found out by carefully looking at the financial statements; thank you.