Security Analysis and Portfolio Management

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Lecture-36

Balance Sheet Analysis-3

Welcome back. So, before the break I was discussing that unrealized gains and losses will also now find a place in the accounting framework consequent to the changes to fair value accounting. Let us continue with our illustration let us say on June 1 the company buys an a financial assets say an equity shares for 100 rupees and then it retains the shares profit throughout the year and it closes the accounts on 31st march of the next year let us say it is 2021.

Then notwithstanding the fact that the company is still holding the shares with it. It shall record the value of the shares or it shall record the appreciation in the or deposition as the case may be in the value of the shares as per the fair value as on 31st March 2021. In other words, it shall recompute the fair value of the shares based on its market assessments of the three-tiered framework that I alluded to and on that basis let us say it arrives at a value of 110.

Then this increase in fair value which has not been realized because the company still retaining that shares with its in its inventory, this will find its way either to the retained earnings if it is accounted for through the profit and loss account or through the accumulated other comprehensive income if it is carried at every FETOCI. So, that is how the unrealized gains or losses as the case may be find their way into the balance sheet.

However, what about realized gains on losses suppose now I sell the shares on 30th April let us say for 130 rupees. Now, what will happen is obviously this profit has to be reflected it profit on sale of the asset has to be reflected in the accounts. But now this profit of or the value of 130 would be compared not with the purchase price of 100 it would be compared with the carrying cost as on 31st March 2021 which was 110.

So, the profit that would go into the profit and loss account for the year 21-22 will be 20 based on the difference between the selling price or the realized price and the carrying cost or the carrying value of that particular instrument. So, that is how realized and unrealized gains or losses are to be treated if a financial asset is sold within the period say 2020 or 21-22.

The gain or loss is realized in the difference between the selling price and the latest pure value which represents the carrying value in our case it was 110 which was the value as on 31st December 31, March 2021 of the asset recorded in the books that is its carrying value. So, that difference between the fair value difference between the selling price I am sorry or the net realization as the case may be and the latest carrying value in the accounts would be the difference that would be recorded as a profit or loss in the income statement.

So, let me reiterate changes in fair value which are unrealized shall be recorded either in the income statement or the OCI and thereafter find their way into the retained earnings or the accumulated OCI. If subsequently, we have realized profits and losses on the disposal of the asset, then the difference between the selling value and the carrying value will be carried through the profit and loss account and will also find its way into the retained earnings.

So, realized gains and losses are to be carried into through the profit and loss account. Whereas, unrealized gains and losses may be carried through FETPL or FETOCI based on the nature and the choice of the entity as elusive at to be explained right now. So, there are various approaches to the carrying of to determine the carrying value or measurement of financial assets financial instruments.

They are amortized cost FETOCI by default FETOCI by design FETPL by default and FETPL by end design amortized cost FETOCI that is fair value through other comprehensive income and fair value through profit and loss account. Let us know explain which of the methodology is applicable to which kind of financial instruments. There are two tests for that in so far test instruments are concerned.

These tests are number one the business model test, what does it say? It says that the assets must be held in in a business model whose objective is to collect the contractual cash flows as opposed to an objective of realizing fair value through sale. So, if you are holding the asset if you are holding debt instruments and you plan to hold the debt instruments to maturity with the objective of collecting the contracted cash flow that is coupon payments and of course, the refund principle.

Then you are meeting this particular business model test. Now, you are you do not plan to sell the asset or sell the bonds in the market for realizing increase in fair value or changes in fair

value. The second test that needs to be considered is the contractual cash flows characteristics test the contracted cash flows are solely payments of principal and interest on principle where interest is the compensation for the time value of money and credit risk the contractual cash flows characteristic test.

So, these are two important tests which will determine the accounting part of debt instruments if a debt instrument which is held by you which is in which you are invested for that particular debt instrument you satisfy both of these tests then you are to carry that instrument at amortized cost I repeat if you satisfy the business model test that is you plan to hold that instrument up to maturity and collect the contractual cash flows coupon payments.

And the repayment of principal and you also satisfy the contractual cash flows test which implies that the cash flows on the instrument would be comprising of interest and principal and interest as compensation for time value of money and the risk of default then if both these characteristics are or both these requirements are both these tests are fulfilled then you will carry the debt instruments at amortized cost.

Now, if the characteristics if this sorry the business model test is modified it to the extent that you plan to hold the instruments not until maturity but you plan in due course of time depending on the changes in interest rates or so on. If you plan to realize the cash flows through sale as well then you have a different business model I repeat in this different business model in this other business model assets are managed or owned or possessed both in order to collect the contractual cash flows and for sale.

So, this is the other business model test the second business model test the contractual cash flows test is more is the same. And if the investor that is the entity plans to hold debt instruments with the objective of liquidating the instruments in the market but the instruments are obviously debt instruments and they provide contractual cash flows and the contractual cash flows comprise of interest and principal and the interest is compensation for time value of money.

And the risk profile of the realizability of the calculus. In that case, the debt instruments are to be carried at FETOCI. So, let me repeat. If the debt instruments satisfy the business model test of holding the assets to holding the investments to maturity then you can carry it at amortized cost.

If the debts instruments are held with the objective of liquidating these instruments at a date earlier than maturity then you are to account for them at FETOCI.

And of course, if the debt instruments are held for trading for short term investment then you are to catch them at FETPL. So, to repeat the three-pronged accounting strategy for debt instruments, if the debt instruments are to be held to maturity. Then you account for them as amortized cost if they are proposed to be liquidated. At the market values as in when required as in when the entity feels appropriate then you are to account for them as FETOCI.

However, if they are short term investments which are held for trading purposes, then you have to account for them at FETPL. Now, as far as equity instruments are concerned, we have two approaches where you can carry them at FETOCI or we can get them at FETPL. When are we allowed to carry equity investments at FETOCI let us see at initial recognition, an entity may make an irrevocable election to present in OCI subsequent changes in fair value of an investment in equity instruments that is not held for trading.

So, if you are holding equity instruments not for short term but for sustained period of time and they are not held for trading that is and you desire to account for the changes in fair value the unrealized changes in fair value through OCI you are allowed to make this particular choice at the initial at the stage of initial recognition. Now, there are two important things, this choice must be made at the point of initial recognition. Number two is that this choice is irrevocable.

And this election is made on an instrument to instrument basis form. So, for every investment in equity, you are entitled to make a choice at the point of initial recognition, when you bring that investment into the books, you are entitled to make a choice, whether you want to carry that investment at OCI or whether you want to carry that investment through the income statement. So, FETPL this is actually a residual class.

What does it include? It includes all instruments that do not qualify for amortized cost or OTCI I am sorry, FETOCI by default. So, all instruments that do not qualify for amortized cost or that is debt instruments to be carried to maturity or FETOCI that includes debt instruments which may be liquidated prior to maturity or equity instruments by choice by design. If these two are not satisfied by a particular instrument then it needs it falls in the residual class.

And it will be accounted for through profit and loss account FETPL. So, all equity investments not designated at FETOCI by design that is the previous provision that I mentioned. And all trading financial assets are obviously carried an FETPL. This is a all-pervasive statement, all trading investments all trading the holding of all trading instruments whatever be the nature of the instruments.

Whether it be in depth, whether it be equity or whether it be derivatives they had to be carried at FETPL if they are held for short term for the purposes of making trading gains or losses. So, that is the in general the schematic representation of accounting for financial instruments explicit FETPL well all assets which are held for trading as I mentioned just now all assets designated by choice at FETPL this is hedge accounting.

Which one can opt for which one can select by design if one invests or one takes position in derivatives which are used for the purpose of hedging and exposure, I will not go into more details of hedge accounting it is a purely technical subject in itself. So, for the moment let it suffice that this accounting relates to investments or taking positions in derivative assets which are used for the purposes of hedging against an exposure.

And this enables the matching of incomes or cash flows between the original assets the exposure actually assets and the hedging instruments which are derivatives. So, this as far as the FETPL is concerned these choices allowed for assets having. Now, this is a special provision this is now overriding provision. What is does this provision say this choice is allowed for assets having amortized cost or FETOCI mandate if FETTPL eliminates accounting mismatch.

Now, what does it say? It means that if originally you are required you are prescribed you are mandated to hold financial assets at either amortized cost or FETOCI but doing so would result in an accounting mismatch. In other words, it violates the matching principle then you can take recourse you then and only then you can take recourse to the accounting for the these instruments at FETPL. So, this is a special provision.

This is an overriding provision and this provision will hold notwithstanding the fact that the original mandate for accounting for these assets is through in the amortized cost or the FETOCI if the use of amortized cost or FETOCI results in an accounting mismatch you can override that accounting and account for the relevant assets relevant investments at FETPL.

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Type of financial asset			
Measurement category	Derivative instrument*	Investment in an equity instrument **	Investment in a debt instrument ***
Amortised cost			▪ (BM + CC)
FVTOCI • classified • elected at initial recognition		▪ (NON TRADING)	▪ (BM + CC)
FVTPL • classified • elected at initial recognition	▪ SPECULATION HEDGE ACCOUNTING.	▪ TRADING + RESIDUAL	▪ TRADING ▪ ACCOUNTIN MISMATC

So, this is the chart which summarizes whatever I have explained in the last few minutes. if debt instrument satisfies the business model test of holding it to maturity and the contractual cash flow test. Then it has to be carried at amortized cost if it satisfies the business modem test of not holding to maturity or prior liquidation and your entails contractual cash flow that is it is a debt instrument.

Then it has to be carried at FETOCI in the case of equity you can choose FETOCI by election at the time of initial recognition by choice. And once that choice is made it is irrevocable. If that choice is not made then equity investments are to be carried at the FETPL. As far as derivatives are concerned, you have the special provision of hedge accounting or and then you have the overriding provision of that all trading assets been carried at FETPL number 1.

And you have another overriding provision that notwithstanding the fact that certain assets may be required may be mandated to be carried at amortized cost or at FETOCI they would be carried at FETPL if the prior methods that is amortized cost or FETOCI result in accounting mismatches. Now, it is an important observation. Note that these alternatives refer to the unrealized changes in fair value, whatever we have talked about so far in so far as the accounting for fair value is concerned refers to unrealized changes in fair value.

That is changes in the value of a financial asset that has not been sold on the valuation date and is still owned at the end of the value at the evaluation period. Unrealized gains and losses are also

referred to help holding period gains and losses. Now, we address an interesting issue that we have been talking about financial instruments required to be carried at fair value. Why does the same philosophy not hold not hold for fixed assets? In other words, why is it that we are allowed to carry fixed assets at historical cost by the current accounting standards even after the paradigm shift to fair value accounting?

This is an interesting issue let us look at that let us look at the characteristic of fixed assets, when you buy a plot of land or you buy a plot, construct a building or buy an item of capital plant or machinery. The objective is obviously to hold the machinery for its useful life to carry the machinery in the business up to its useful life. In other words, at the point of holding at the point of investment or at the point to buy that plant and machinery the intention is to retain that asset retain that machinery over the remaining economic life or remaining life of the asset.

What does it mean? It means that the value of the machinery in so far as the market is concerned with the fluctuations in the market price of the machinery are not really going to impact your accounting or accounting income if you consider accounting over the entire life of the machinery. In other words, suppose let us let me illustrate this with an example. Suppose I buy a machinery today a t equal to 0.

And the life of the machinery is let say 2 years let us keep it simple. Now, obviously and I plan to hold it for 2 years. So, that is the only reason we are calling it a fixed asset. If we did not plan to hold it for a sustained period of time, we would not be calling it fixed assets. The definition where a definition of a fixed asset is that it would provide future economic benefit over a sustained period of time.

So, let us look at an asset just to keep it simple for which have a life of 2 years. Now, at the end of 2 years, let us say it is residual life is 0. So obviously, suppose I prepare the profit and loss account not for 1 year but for 2 years. Then obviously I will be including the entire value of the asset in the profit and loss account. So, in other words if I prepare the value of the profit and loss account for the first year and then for the second year I am simply splitting of this value. Which is over 2 years into 2 parts.

Now, how that two parts are arrived at they will not they will not influence the overall profit of the firm over the life of the firm or the life of the asset as a whole that is one point. In second

point is because you have no intention of selling the asset in the market, because you plan to hold it over its economic life, you do not have any intention of selling it into the market. So, the market price becomes redundant in the sense you are not concerned with if the asset has appreciated in value or depreciated in value in the market.

Because you are not intending to sell it in any case. So, market price becomes an irrelevant consideration. And thirdly if you use market value instead of the historical cost, what are you simply doing? Firstly, you are adding volatility to the income statement because you will have to value it at the end of the first year. whatever value it is let us say its value has gone up from 100 to 210. And let us say at the end of next year its value comes down to 0.

Because that is fixed because the life of the asset is only two years. So, in that case, what will happen while in the in the first year, you will incorporate plus 10 into your profit and loss account. In the second case second year you will incorporate minus 110 in the in your income statement. So, that will simply add volatility just for nothing the changes in value in one accounting period will have to cancel the changes in value in other accounting periods.

Because the opening and closing values of the asset are known and fixed. So, that is one fundamental reason it adds volatility unnecessary volatility and the second is the practical activity practicability aspect if you go by the market valuations what you should ideally do is the difference between the closing market value of the asset and the opening market value of the asset is required to be transferred to the income statement.

So, this process entails the market valuation of each and every item of fixed asset at every closing date, which is practically an impossibility. So, there are several reasons which justify the inclusion or the carrying of fixed assets that historical cause. I repeat number 1 the entity has no intention of selling them. This insulates the entity in so far as fluctuations in market value of that fixed asset is concerned.

Number 2, if the income statement is prepared for the entire life of the asset, the entire cost will be reflected in the expenses. So, at the end of the day what you are doing is you are simply apportion in the life the cost of the asset over its useful life in some appropriate manner. If you use market prices, it adds volatility without serving any significantly useful purpose. And then there is a issue of practicability.

It would entail the valuation at the end of each accounting period or every item of fixed asset every element of fixed assets, which is a practical impossibility. And as I mentioned, if we recorded it at market value the fluctuations or the increase in value in a particular year will offset the decrease in value in another year and so on. Because at the end of the day, the opening value and the closing value are both known to us.

Opening value is the price at which we procured the fixed asset and the closing value is the estimated salvage value. However, what about current assets can we afford to carry current assets at historical cost? Let us try to understand it by an example. What are current assets they are short term assets, they are assets which will be converted from one form to another which will be transformed from one form to another in short periods of time not exceeding 1 year.

So, these are this is the definition of current assets. Let us try to understand why we cannot carry current assets that historical costs, why it is appropriate to use the lesser of historical cost and net realizable value particularly in the case of inventories. Let it reading entity by an item for trading at a cost of 100 say on January 1 2021. Let the market price of the item on March 31 2021. That is the closing date P80 let the item is sold on April 1 2021 B 470.

So, you buy an asset on January 1 2021 for 100 its market price market valuation the fair valuation you may call it as on 31th March 2021 turns out to be 80 and you sell it the next day that is April 1 that is in the accounting period 21 22 at 70. Now, how would it be reflected under the two approaches if I use only the cost approach then what happens the entire loss of 30 that is 170 minus 100 that is minus 30 entire loss of 30 would be accounting for in the year 2020 21-22 I am sorry 21-22.

However, if I record if I carry the inventory or the items at cost public nrv whichever is lower, then what I would do? I would the closing value I would record on 31st March 21 as 80 and as a result of it 20 as a 80 I am sorry yes. And the difference of 20 would be reflected in the accounts of 2021 and the difference 70 minus 80 that is 10 would be reflected in the accounts of 21-22 I repeat suppose I use the realizable value approach then the valuation as on 31st March is 80.

So, the loss of 20 would be accounted for in the year 20-21 and this subsequent loss of 10 that is 70 minus 80 say selling price minus the carrying value would be recorded in 21-22. So, you can see here that by carrying this asset at fair value or the nrv that is the realizable value or cost

whichever is lower I am accounting for the changes in market value in a staggered manner which reduces in most cases actually it may not always be so but in most cases it reduces the volatility of the income statement. There are other issues also.

The second is conservatism. Now, what does conservatism say conservatism says that the business entity should be conservative in the sense that it should record losses even unrealized losses as soon as possible. As soon as there is a significant probability of the incurrence of a loss the loss should be brought into the books. And therefore, the recording at nrv or cost whichever is lower meets this particular mandate or particular convention on the basis of which accounting statements are prepared.

So, this is one part that if there is a fall in the market value of the asset and resulting in depletion or the possible depletion of profits, that depletion should be reflected in the books as soon as possible. And that is achieved by the use of use of an nrv approach. Then, the second thing is, if you are taking this example, if you are carrying this asset at 100 on 31st, March 2021, you are carrying some hidden results which are actually not realizable.

Because you very well know that the market value of the asset has dropped down to 80. And it is very likely that it would never return the value would not increase to 100 or more or it would not increase from 80. And therefore, if you carry the asset at 100 that means you are carrying a reserve of 20 which the reserve is not likely to be realized, because you will never be able to sell that particular asset at 100.

At least there is not a significant probability that you will be able to sell it at 100. And then as I explained, the use of fair value neglects or reduces the volatility by accounting for changes in prices if there is a fall in prices accounting for the changes in prices in a staggered manner. Hence, it is more appropriate to carry current assets at net realizable value if it is lower than cost. Of course, if net realizable value turns out to be higher than cost then there is no problem at all in carrying the current assets at cost.

Now, we come to another interesting issue. Why is LIFO easy? Most of the standards advocate the use of LIFO for or the weighted average or specific price or such some such similar approach for the valuation of inventory of closing inventory. We LIFO is not advocated LIFO is not

recommended by most standards. There are several reasons for this, some of them are quite obvious. What is does LIFO do?

LIFO means that the last assign let us talk about a situation in which the prices are gradually increasing which is the normal situation in most economies where we are having steady inflation and therefore, the prices are gradually increasing. So, if that is the situation then what happens? As the prices are going to increase, the subsequent consignments of the purchase of let us say raw material are going to be more and more expensive.

The initial let us say the earlier purchases would be at a lower cost, the next patch would be at a slightly relatively higher cost and this sequence or this trend would continue due to the inflationary effect. What does it mean? What does LIFO do? LIFO ensures or LIFO implies that the issue to the work floor is made or is deemed to be made. You see, it does not matter which consignment you are actually physically moving to the shop floor.

But it for the purposes of valuation for the purpose of accounting. When you talk about LIFO what you are saying is that issues will be valued at the latest prices. In other words, it is a deeming provision where the issue to the shop floor will be deemed to be issued from the latest consignment. I repeat the physical process of issue into the shop floor may be from any assignment because all the items are identical in all respects.

So, but for the purposes of accounting for the purposes of valuation it is deemed that the issue to the shop floor is made from the latest consignment. That means what remains what will go to the balance sheet will be from the earlier consignment. What will be issued to the shop floor thereafter what will go to the income statement will be from the latest consignment which will be at the higher price.

And whatever will be taken to the balance sheet will be at the lower price with you because it will reflect the earlier consignments. What does it mean? Because you are issuing to the shop floor at a higher price that the latest price that was the amount that was carried forward to the income statement would be higher and the profits would be lower if you are following LIFO. On the other end, the balance sheets valuations would be lower and the reserves would also be lower in that sense.

So, what are the implications? Number 1 the income will be understated the income will be reduced because the last consignment which is the most expensive assignment goes to the shop floor. And once it goes to the shop floor it goes recorded as a part of the income statement. The second is the balance sheet item reflects the earlier consignment. So, to that extent, the balance sheet figures get outdated. So that is the second point. Then we have the issue of LIFO layer liquidation. Before I come back to this, let us understand the first two points by an example let us it is a very trivial example, but it will convey the message.

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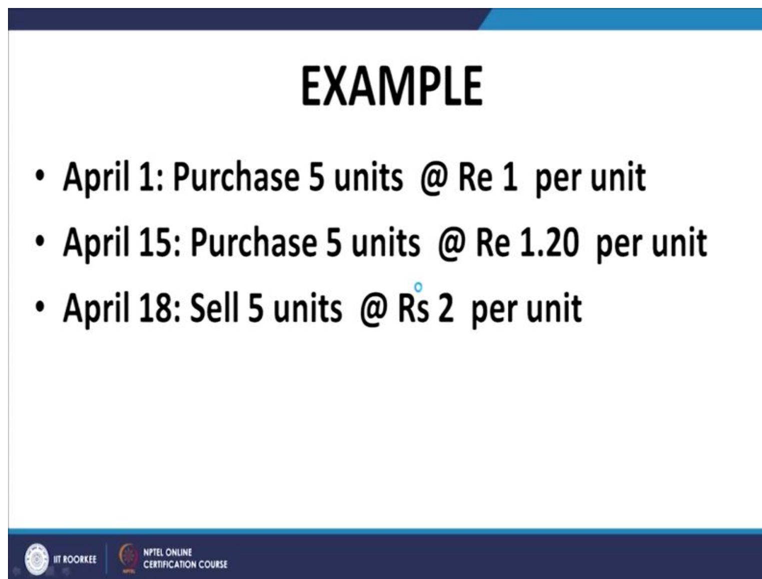

Suppose on April 1 I purchase 5 units at rupees 1 per unit on April 15 I purchase 5 units at rupees 120 per unit and on April 18, I sell 5 units at rupees 2 per unit very simple question. Let us try to understand the implications of LIFO and FIFO. So, when it is when we are following FIFO what will happen the sales of 5 units will be reflected from the April 1 consignment and when I am following LIFO the sales of 5 units of April 18 will be reflected from the April 15 consignment. So, that will be the difference between the two.

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PROFIT & LOSS ACCOUNT

		FIFO	LIFO			FIFO	LIFO
April 1	To Purchase	5	5	April 18	By Sale	10	10
April 15	To Purchase	6	6	April 30	By Closing Stock	6	5
April 30	To Profit	5	4				
TOTAL		16	15			16	15
			BALANCE SHEET EXTRACT				
	Profit	5	4		Closing Stock	6	5

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And that will manifest itself as the summary statements that are here on the slide the purchases in both cases in FIFO as well as LIFO would be the same. April 1, we have 5 April 1 we have 5 that is 5 units at the rate of 1 rupee per unit April 15 we have 6 that is 5 units at the rate of 120 per unit. What about the closing stock now please note this in the case of FIFO the closing stock consists of the last assignment so it will be 6.

In the case of LIFO, the closing stock will consist of the April 1 assignment which is at 5 and what about the sale? The sale is obviously the same in both cases. So, what is the impact on profit. In the case of FIFO, the profit is more in the case of LIFO the profit is less because the prices have increased. And LIFO assumes that the issue or the selling is from the later consignment which is at a higher price FIFO assumes that the sale is from the earlier consignment which is at a lower price assuming of course the inflation part.

So, the price the profits are understated when you use LIFO. This can cause lower tax liabilities which is frowned upon which is not like fully liked by the government authorities if companies are able to manage their tax liabilities by using inventory methods like LIFO. So, as far as the balance sheet is concerned again, the closing stock will show a difference of 1 in the case of FIFO the closing stock is of the later amount later consignment in the case of LIFO the closing stock is of the earlier consignment.

Now, we talk about LIFO layer liquidation let me briefly touch on this. Let us assume that a company has a certain amount of inventory and then there is a decision taken by the management to liquidate the entire inventory. What will happen is when you liquidate the entire inventory at one minute I am taking an example because let us assume that the company has been following LIFO.

Now, if the company has been following LIFO the inventory that it has been bringing forward has been reflected is reflected at the earliest cost. So, and assuming inflation, the inventory would be at the lowest cost as you can see in this example here inventory is reflected at the earliest cost.

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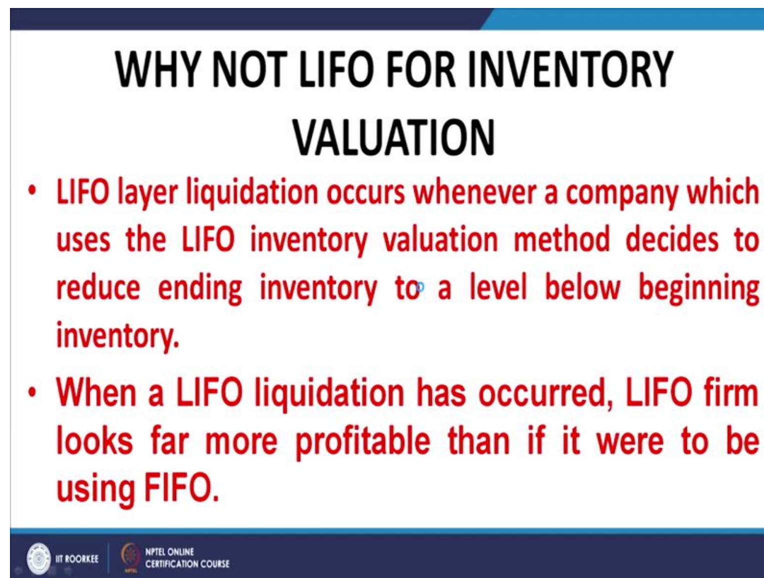

So, suppose now the management decides to liquidate the entire inventory. And therefore, what will happen in this case is that inventory which is undervalued the inventory which is undervalued will be sold in the market at the market price and that will result in a windfall of profits. However, these profits would not be sustainable. This would be a one-time windfall profit and which would distort the financials of the company.

This process is called LIFO layer liquidation. So, LIFO layer liquidation occurs whenever a company which uses the LIFO inventory valuation model decides to reduce ending inventory to a level below beginning inventory when a LIFO liquidation has occurred. LIFO firm looks far

more profitable than if it were using FIFO. And this is because as I mentioned the old cause the inventory is carried at all costs it is sold at the current price.

And therefore, this thing the revenues and profits reflect a one-time unsustainable earnings inflation one-time unsustainable earnings inflation because when you liquidating the inventory completely or more than the opening inventory. So, this is misleading and would facilitate malpractices. We will continue from here in the next class. When I start our plan or I plan to talk about depreciation and more importantly I plan to talk about capitalization versus expensing of an item. Thank you.