Security Analysis and Portfolio Management
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Lecture-37
Balance Sheet Analysis-IV

Welcome back. So, let us continue from where we left off I was discussing the prescriptions of the accounting standards relating to valuation of assets and liabilities in the last lecture. I have summarized them for you. fixed assets are allowed to be valued at historical cost although revaluation model is also permitted. Now, please note it is not mandatory that fixed assets be valued at historical costs you can carry them at revalued revalued figures also. I will come back to them financial assets are to be carried either at amortized cost or fair value through OTCI or fair value through profit and loss account depending on the business model under which the instruments are being held by the investing company.

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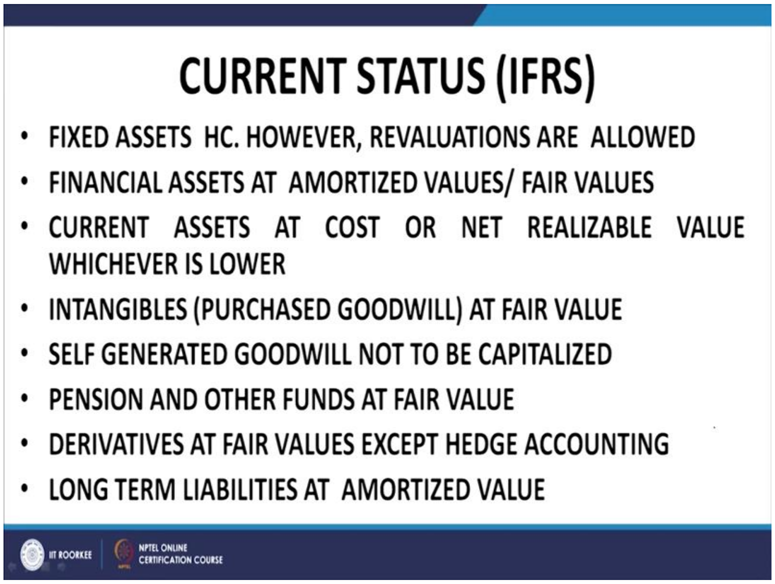

Current assets as usual that to be valued at cost or net realizable value whichever is lowered. Intangibles so including purchased goodwill is to be carried at fair value. Here the issue of impairment testing arises with for the assets which have indefinite lives. Self-generated goodwill is not allowed to be capitalized is not allowed to be taken to the balance sheet under the contemporary accounting standards pension and other funds are to be carried at fair value.

Derivatives held for trading speculation and so on are to be carried at fair values except for the special case when the derivatives are held positions in the derivatives are held to counter the exposure of the investing company or the company that is undertaking hedging. Long term liabilities are allowed to be carried at amortized cost. Why is it that fair values are allowed to I am sorry, why is it that fixed assets are allowed to be carried at historical cost in contrast to financial assets.

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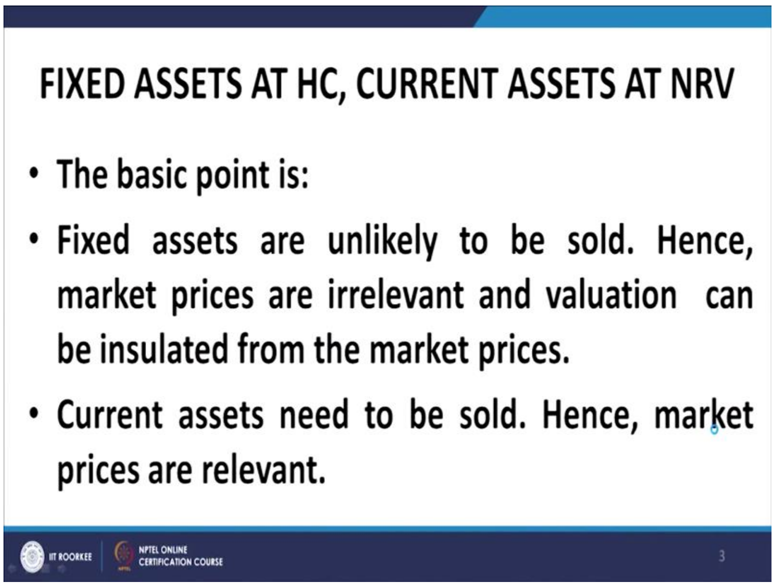

The reason is simple fixed assets are unlikely to be sold and hence market prices are irrelevant and valuation can be insulated from the market prices. By the very definition fixed assets are assets which are proposed to be held by the by the company by the entity over a substantial period of its economic life useful life and therefore, the market prices become irrelevant and therefore valuations can be insulated from the market price in the case of fixed assets.

In the case of current assets as well as financial assets. That is not the case because financial assets if they are expected to be sold and current assets invariably are held for the purpose of trading it is for selling or for transformation into other products which will be sold and in that case the market values become significantly relevant. And therefore, the prescription is that these assets should be valued at either market value or unrealizable value or cost whichever is lower.

In the case of current assets and in the case of financial assets at fair value. Now, fixed as I mentioned right at the beginning of today's lecture fixed assets can be carried are allowed to be carried either at historical cost or revaluation model. Therefore, revaluation is of fixed assets and carrying the fixed assets at fair value is also allowed as a model for holding these assets. Now, what is the difference between the revaluation model and the cost model?

Well, in the case of the cost model the carrying amount of the asset is calculated with reference to the cost of acquisition cost of acquisition less accumulated deposition constitutes the carrying value of the fixed assets. In the case of the revaluation model revaluation changes the carrying amounts of the classes of assets two fair value at a particular point in time at which we are doing the revaluation.

So, if we decide to do revaluation at a point in time we can reinstate all the assets are relevant to that particular class at the fair value as on the date of revaluation. And thereafter, the carrying value of the fixed assets under the revaluation model will be the revalued figures or the fair value as on the date of revaluation less any accumulated depreciation subsequent to the date of revaluation.

So, in other words in that case the carrying amount as per the revaluation model for fixed assets at the revaluation amount or the revaluation figure or the fair value as on the date of revaluation minus any subsequent depreciation that is charged to those assets. So, this is a fundamental difference between revaluation and cost model. Cost model carrying amount is equal to acquisition cost minus accumulated deposition.

Revaluation model carrying amount is equal to the revalued figures minus subsequent deposition. Please note depreciation that has been charged prior to the date of revaluation will lose its entity because of the revaluation of the asset. So, in a sense we are starting a fresh and so, far as that asset is concerned.

We are valuing it at that point in time at which we decide to do the revaluation and from there on whatever depreciation is charged in respect of that asset will be reduced to from that fair value to arrive at the carrying amount or carrying value of the fixed asset as for the revaluation model. So, what are the implications of revaluation? It is very interesting to see. let us briefly see and go through this.

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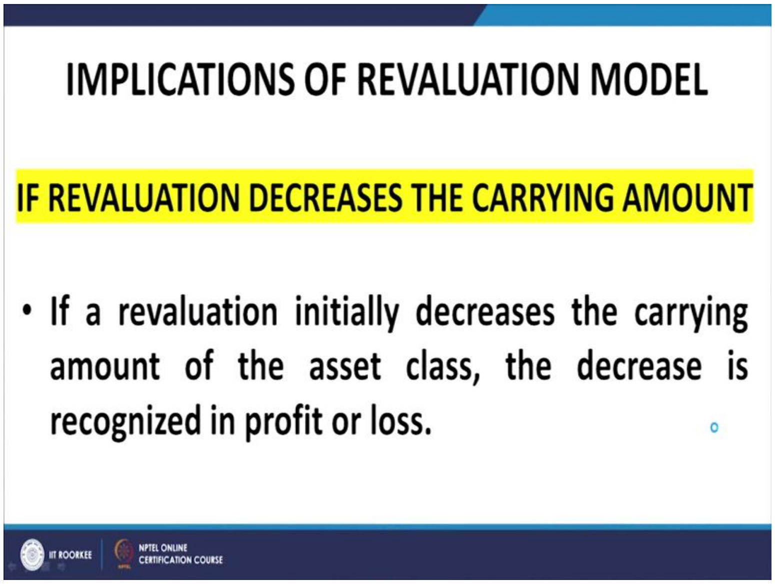

If revaluation decreases the carrying amount then how we are to treat it in accounts. If revaluation I repeat if revaluation decreases the carrying amount then the revaluation or the decrease in value is to be carried to the profit and loss account. I repeat, if there is a decrease on account of revaluation in the value of an asset then that decrease in value is to be carried to the profit and loss account.

Now, if subsequently at another point of time I have further revaluation takes place and the value of the asset increases on account of the second revaluation and to the extent that the there was a decrease in revaluation which was charged to the profit and loss account. The amount of increase can be credited to the profit and loss account. However, any excess there of any excess over the amount which was earlier debited to the profit and loss account will need to be carried directly to equity as a revaluation surplus. So, let me read it out if the carrying amount of the asset class increases on account of a subsequent revaluation.

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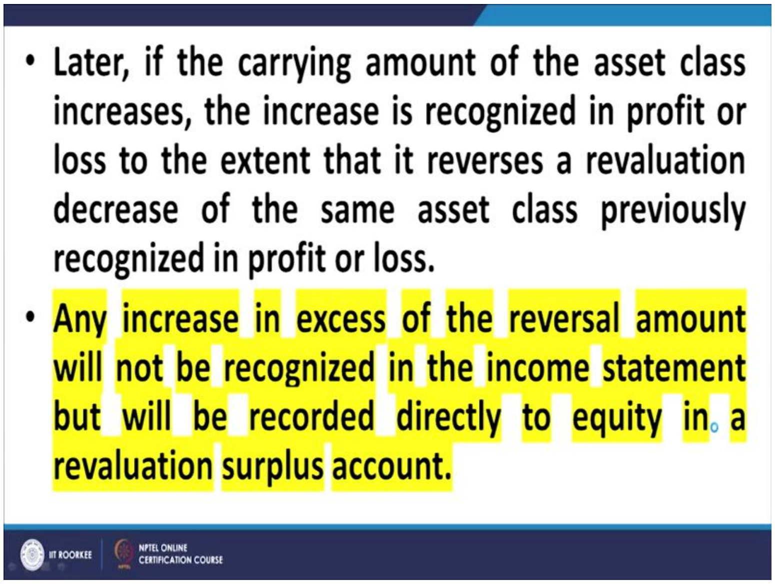

And the increase is recognized to the profit and loss account to the extent that it reverses the revaluation decrease of the same asset class previously recognition on profit and loss. And if any increase beyond that figure in excess of the reversal amount will not be recognized to the income statement it will bypass the income statement and will be recorded directly in equity as a revaluation surplus. So, if there was an earlier debit to the extent of the debit you can credit or you can credit on a subsequent increase in the revaluation. And any excess thereof will not be allowed to be credited to the profit and loss account it will be carried directly to equity as the revaluation surplus.

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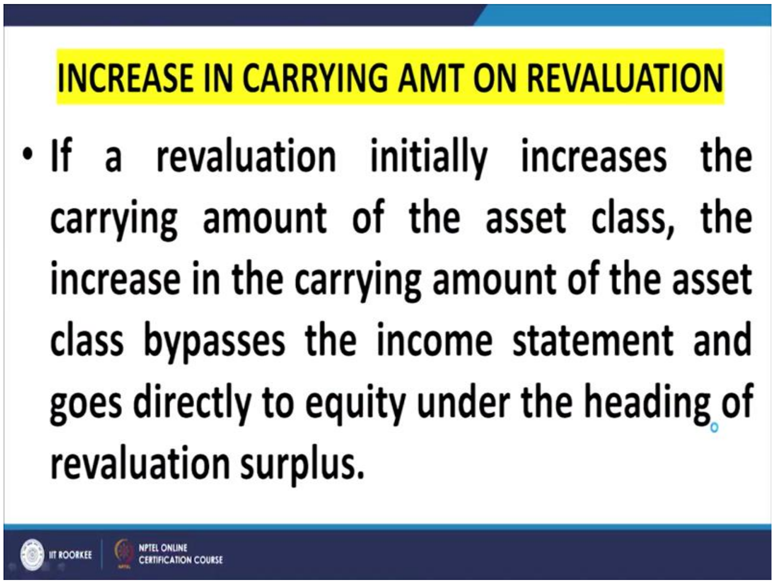

On the other hand, if there is an increase in the carrying amount on revaluation. Then how do we deal with it then the increase in the carrying amount of the asset bypasses the income statement, it will not be credited to the income statement it will go directly to the equity under the heading of revaluation surplus.

So, I repeat if there is an increase on account of revaluation in the value of an asset, and that increase is not credited to the not credited to the income statement not created to the profit and loss account, it is directly carried to the statement on changes in equity as a revaluation surplus. And a subsequent decrease in the assets value will first decrease the three-valuation surplus and then go to income statement.

So, it is just the other way around of what we had earlier. If there is a subsequent decrease in the revaluation that revaluation will be debited to the revaluation surplus. And if the decrease is more than what was credited to the revaluation surplus. And that excess will be debited to the income statement. So, now another important point when an asset is d recognized or it is retired or disposed of the related amount of revaluation surplus is in that was included in equity is then transferred to retained earnings.

So, in other words when an asset is discarded then there is no point in carrying and the revaluation surplus in that in context of that asset. And there is no logic either in carrying the revaluation surplus in context of an asset which has been discarded. And therefore, the provision of losses that as in when an revalued asset is discarded. Any credit remaining in the revaluation surplus on account of that asset will be transferred to the to the retained earnings.

And will be available for distribution now here I would like to digress just a minute before I proceed with the impact of revaluation on leverage. The important point here is that a revaluation is treated with a lot of restraint a lot of care by the by the legislation and the accounting standards setters because of for the simple reason that revaluation profit in general is a notional profit. It is not profit which is realized on in cash which is not which is actually realized in cash.

It is a profit which is simply a book entry. And therefore, the most of the accounting regulators are of the view that revaluation profits should not be allowed, I repeat should not be allowed for distribution as dividend. So, distribution of dividends to shareholders through revaluation surplus is generally not allowed under most of the accounting standard. Why is it so? Because if that were allowed then a revaluation entry could inflate the value of the assets on the one side create a revaluation surplus.

And by debiting the revaluation surplus you could go ahead and pay and siphon out the current assets or the cash resources or the liquid resources of the company and this would operate as a massive detriment to the creditors who would have no say in this entire process. So, and this kind of malpractices would pervade the industry with the unscrupulous entrepreneurs. So, that is why there are provisions in most accounting standards.

Which forbid the use of revaluation surplus for the distribution of cash dividend to shareholders. Of course when the revaluation surplus gets converted to realize profits if an asset is sold, if a revalued asset is sold then of course the revaluation surplus becomes free because it is now realized in cash and therefore, it is available for distribution to the shareholders. Now, we come to impact of revaluation leverage increase.

Let us consider the case when there is an increase in the carrying amount on revaluation. If there is an increase in the carrying amount of depreciable long-lived assets and obviously, the total assets increase and the shareholders increase equity increases on account of the increase in net worth if we include the revaluation surplus in network. Now, if we define leverage, as the average total assets divided by average shareholders equity.

Then increase the numerator and the increase in the denominator by the same absolute amount will result in a decline in the ratio. So, the reported leverage on account of revaluation provided that the revaluation results in an increase in the value of the assets causes a decline in the leverage ratios meant asset revaluations that increase the carrying amount of an asset can be used to report a decreased leverage of an entity. On the other end a decrease in the carrying amount on revaluation.

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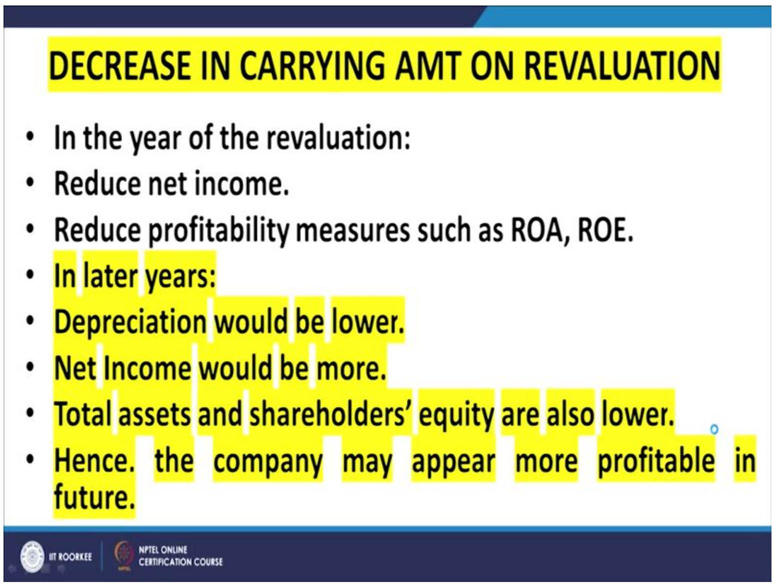

And I have the following impact in the year of the revaluation it will reduce net income because as I mentioned at the beginning a decrease in the value of an asset on revaluation has to be carried to the profit and loss account. Therefore, it will reduce the net income, it will also reduce profitability measures such as return on assets and return on equity because the decrease in net income would be and the decrease in the value of the asset would be of the same amount as a result of with the ratio of the net income to net assets would decrease.

So, if there is a revaluation that decreases the value of an asset then first of all the net income decreases because that decrease in value on revaluation has to be debited to the profit and loss account. This will result in a decrease in the numerator and denominator of ratios such as return on assets or return on equity resulting in a decrease in these ratios. In later years, the depreciation would be lower because you would be charging revaluation on you would be charging depreciation I am sorry on the revalued amount.

And the net income would marginally increase because of the reduced depreciation your total assets and shareholders equity would be lowered. And hence the company may appear more profitable in future years. So, these are more or less self-explanatory as the impact of revaluation which causes a fall in the carrying amount of the asset. Now, we talked about asset impairment, no impairment charges reflect an unanticipated this.

Unanticipated is emphasized it is not an emphasize an anticipated change it is an unanticipated change in the earning capacity of the asset. If there is a decline unanticipated decline in the earning capacity of an asset and as a result of which its future the future economic benefits that are likely to accrue from holding the asset decline. Then that decline in the in the value of the future economic benefits which is which I repeat is unanticipated was a due to an unanticipated region is called impairment. And this impairment is required to be recorded in the profit and loss account forthwith.

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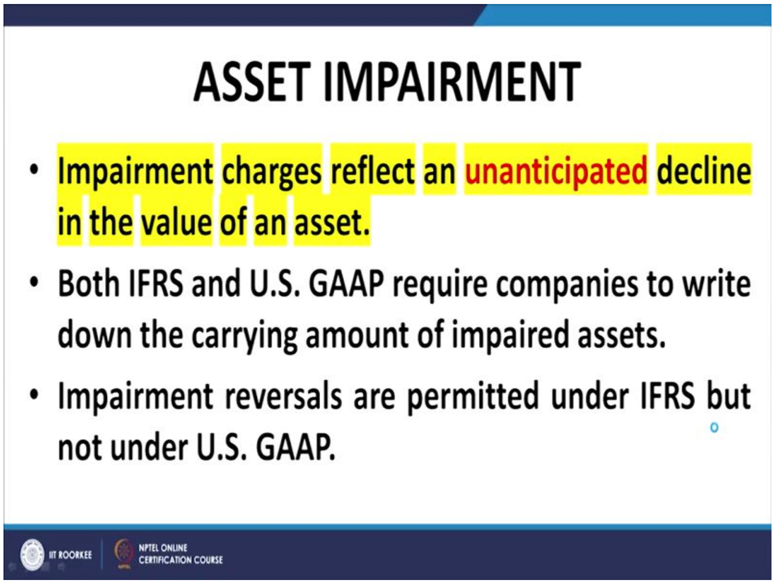

Both IFRS and US GAAP require companies to write down the carrying amount of impaired assets. So, if there is any impairment in the future economic benefits that are to be derived from an asset and that yet impairment needs to be forthwith recorded and deducted from the carrying amount of the asset by debit to the profit and loss account. impairment reversals are permitted under IPRS IFRS I am sorry, but not allowed under the US GAAP.

The amount of the impairment will reduce the carrying amount of the asset on the balance sheet and will reduce net income on the income statement. In other words, the impact of impairment the impact of the unanticipated decrease in the earning capacity of the asset, I will be evaluated in terms of money and that amount would be debited to the profit and loss account as impairment loss and because warning entry will reduce the carrying amount of the impaired asset.

And the impairment loss is a non-cash item and will not affect cash from operations. Cash flow versus income the impact of depreciation and the issue of depreciation rather. Now, cash flow is roughly speaking, cash flow is a movement of cash or funds also or you may defined cash flow statement we can define there are variants of the cash flow statement we have the fund flow statement on the one side and we have a cash flow statement on the other side.

But they fulfill more or less similar purposes they will depict the sources and deployment of funds in the case of fund flow statement of cash in the case of the cash flow statement. So, the basic thing is that cash flow is a movement is a flow or the transfer is a physical in some sense it is a physical transfer of funds are cash from one account to another income on the other hand, is defined as the revenue our expenses both cash and non-cash.

Now, please note this point very important point. Here the issue of accrual concept comes into play I will talk about it income is the excess of revenue our expenses cash or non-cash both pertaining to an accounting period. Please note here is the relevance of the accrual concept, we need to account for both income and expenses which pertain to the accounting period irrespective of the fact whether cash has actually been received in respect of the income or cash has actually been paid in respect of the expense in that particular period.

It is when that particular account or that particular transaction impacts the entity that is the deciding point at which that transaction needs to be reflected in the account not when the transactions subsequent or in the case of insurance and such issues prior payment of the cost their off of the cost of the transaction or the impact of the transaction in terms of money. So, the flow of money is not the deciding criterion.

The impact of the transaction on the entity is the deciding criterion and so for as the time part is concerned at which the entity should record the transaction. The income statement reflects the in the relationship or the excess of revenue over expenses based on the accrual concept based on the time points at which those transactions relating to revenues and expenses actually impact the entity.

Notwithstanding the fact I repeat notwithstanding the fact that actual payment for the expenses are actually actual receipt of the revenues would have occurred in an earlier or later accounting period. So, non-depreciation is one such example. And you see what happens in the case of depreciation is you buy the asset let us say a t equal to 0. So, there is a cash flow that occurs at t equal to 0.

But because the benefit of that particular asset for example it is a fixed asset, it is a long-term asset long lived asset. And therefore, the benefit that is going to be accrued from that asset, the benefit that is going to be derived from that asset is going to extend over a sustained period of time say 10 years. That means, what that means as far as the income statement is concerned, we need to account for the consumption of that asset that fixed asset the long-term asset for over a period of 10 years although the actual purchase price of the asset was paid at t equal to 0.

And therefore, as far as the income statement goes, we shall distribute the value of that asset over the entire life of the asset on some equitable basis, which indeed is called depreciation. On the other hand, when we prepare the cash flow statement, we shall be accounting for the purchase of that asset in the year in which it was actually purchasing in the year in which the flow of money took place for the buying of that asset.

So, that is the difference between that highlights the difference between a cash flow statement and an income statement very aptly. Depreciation is a way of allocating the purchase price over each year of the plants useful life so that profits can be estimated on each year basis technically the change in the value of every asset should go fixed asset that is a change in the value of every asset.

Indeed, in this statement could be broader than considering only fixed assets. But for the moment, we are talking about fixed assets technically the change in the value of every asset should go to the income statement as depreciation you should work out the value of the asset at the end of the year you should work out the value of the asset at the beginning of the year. And the difference between the two will reflect the consumption of the asset.

And that consumption of the asset should go into the income statement. That is the correct or the legally I am sorry not the legally but the technically correct position. So, in that sense you should value the asset at the end of the year you have the value of the asset at the beginning of the year, which is the closing value of the asset in the earlier year. And the difference between the two should go into the income statement.

However, it is practically not possible, it is not feasible really that every item of fixed assets be valued at the end of the year and at the beginning of the year and then the difference will be worked out and debited to the profit and loss account. It is and indeed on the one hand it is not feasible. And on the other hand, to add rational to the nonuse of this particular approach as I have explained earlier.

The fixed assets are to be held over the life of the useful life of the asset. And therefore, they get insulated from market prices. And at the end of the day the entire value of the asset has to be written off in some appropriate pattern and it really does not impact the enterprise very significantly whether the asset is written off in one way or the other. So, to that extent the damage that is caused by the non use of this technically correct prescription is mitigated in the case of fixed assets.

So, if for any reason for the case of fixed assets any reasonable approach to the apportionment of the cost of the asset to the accounting period over its life suffices as I mentioned explained just now the initial cash flow occurs on acquiring the asset in one lump sum set equal to 0. And the cost of acquisition appears in the cash flow statement of the year in which the asset is acquired the asset is purchased the debit of the asset cost to the income statement is distributed over the useful life of the asset in an equitable manner.

Now, the charge of depreciation to the income statement does not entail any cash flow. Because that cash flow has already taken place at t equal to 0. So obviously, and you have what you are doing simply is that cash flow that has taken place at t equal to 0, you are redistributing it into the income statement in a in a more rational manner to arrive at the consumption of the asset in each accounting period.

So, that is a notional distribution of the value of the asset to each accounting period on some appropriate basis. Whereas the payment of money to acquire the asset is a physical event that results in the acquisition of the asset. So, cash flows are spent and received in a lumpy manner and over the long over the long run. total cash flows do tend to equal total accruals but however, in a single year they will not be so as I explained on account of as I explained by an illustration of the acquisition of a fixed asset.

Depending on how depreciation and similar amortization are estimated and allocated the net income can be higher or lower in a given year. Non-depreciable assets the two main non depreciable assets that we have are number one land because it is the impression among their standard setters that the value of land never declined and as a result of which we need not charged depreciation on land.

And the second is the case of intangible assets which have an indefinite life like goodwill in the case of intangible assets that have an indefinite life. The accounting standards recommend that they need not be amortized on any basis. However, they need to be tested for impairment at regular intervals and in the event of the existence of some unforeseen event that reduces the value of the intangible asset that impairs the value of that intangible asset the amount of such an impairment should be estimated.

And that should be recognized in the year immediately forthwith. So, as far as intangible assets with finite life are concerned they need to be amortized in a suitable way just as the case of tangible fixed assets in the case of intangible assets that have an indefinite life you are not required to amortize those assets but you are required to test the assets for impairment with there is an impairment in the value in the carrying amount of those assets.

And that if the testing results in the existence of any impairment in the value of the assets then that amount of impairment should be recognized in the accounts forthwith. Now, commonly we have two methods of depreciation that were that are used in practice, we have the straight-line method which amortizes the value of asset value of a fixed asset over a useful life in equal in equal amounts.

And then we have the written down value method which is a declining balance method. Now, since the amount of depreciation that needs to be written off to the income statement is the same in both cases because it would reflect the difference between the purchase price and the salvage value of the asset. The difference between them is what is to be carried to the income statement over the life of the asset reflecting overall consumption or total consumption of the asset.

And therefore, whether you use the SLM method or you use the WDV method, it simply amounts to a redistribution of the amortization amounts to the income statement. But there are certain implications of the methods that you use the straight-line methods gives you a uniform charge to the profit and loss account every year. In the case of the WDV method, the charge is more in the earlier years.

And gradually it starts declining and it is very nominal towards the end of the life of the asset. So, I repeat in the case of the straight-line method, you have a uniform charge to the profit and loss account up over the useful life of the asset. In the case of WDV the charge in the earlier years is very much more than the charge in the later years of the life of the asset. So, that is why it is called an accelerated depreciation method WDV is called the accelerated deposition method as a straight-line method is the uniform charge method.

Now, as I mentioned, let me reiterate this, it must be noted that even if the pattern of allocation under the two methods is different the total amount of depreciation over the life of the asset is the same. This is very important and needs to be understood by the learners that at the end of the day what we are writing off is the same amount that is the line that is the value of the asset let us scrap value and the amount is the same and the period over which it is to be written off is also the same.

It is only the distribution of that amortization over this useful life that varies in the two methods. And in fact, there are many other methods as well. These two are the most commonly used ones. Now what are the what is the impact of the accelerated or the WDV method of depreciation. Let us see the WDV or the accelerated methods shield in lower profit in earlier years because the charge as I mentioned, the charge to the profit and loss account under the WDV is higher in the case of earlier years and lower in the later years.

Lower profits can lead to lower price multiples like the PE ratio and so on. And a decline in the stock price. So, because you are having lower profits you will have lower returns on equity and so on that will manifest itself as lower market prices for the asset. The differential between reported profits and cash flows will go up naturally. Because depreciation is more so obviously at the end of the day depreciation is one of the main contributors to the difference between cash flow and accounting profit for n year.

And if the depreciation is more, as in the earlier years due to WDV the difference between the two is more. And this therefore do we have a tradeoff between the two there are benefits of each method. WDV has its own advantages straight line method has its own advantages. Now, one important thing I would like to emphasize here is that as far as taxation is concerned your choice of method in so far as the accounting profit is concerned or the accounting under the company laws as for concern companies act is concerned the amount of taxation will not be affected.

Although of course, you may have a difference in deferred taxation and so on but the actual tax payable will not be affected. Because the actual tax payable is calculated on the basis of the provisions of the tax legislation, which have their own prescriptions in so far as the methods and rates of depreciation are concerned in most cases. So, because the taxation laws have their own prescriptions and so far as the methods and the rates of deposition are concerned.

What so ever method you may use in so far as computing the accounting profits will not impact your actual tax liability for the relevant years. Further when but there is another impact of WDV accelerated depreciation a products are priced on the basis of the full cost approach. That means that includes the depreciation when you are pricing the product the total cost in the earlier years would be higher because the higher charge of depreciation.

And that may make the company's products less lesser in terms of competitiveness. And then, because the capital erosion or the value erosion, the value decline of the various assets of a division take place quickly in under the accelerated method. In the top level, management may be flooded with more requests for capital investment by divisional heads. That is another issue that may not go well with the use of the WDV approach to depreciation. Now, we come to another issue, whether very important issue that is capitalization versus expensing. I will take it up after the break. Thank you.