Ind AS Case Study

Accounting for Revaluation of Property, Plant and Equipment

Standards required:

12	Income Taxes
16	Property, Plant and Equipment
33	Earnings per Share

CASE STUDY

Accounting for Revaluation of Property, Plant and Equipment

Learning outcome

This Case Study aims to show how the revalued carrying amount of an item of property, plant and equipment (PPE) is recovered through use that generates taxable income which exceeds the accumulated depreciation that will be allowed for tax purposes in future periods. For upward revaluation of an asset, the increase is included in Other Comprehensive Income as Revaluation Surplus. Also, a taxable temporary difference arises outside Profit or loss, ie, in Other Comprehensive Income and results in a deferred tax liability. This Case Study also shows why Ind AS 12 requires the recognition of all deferred tax liabilities in case of revaluation of an asset. Lastly, recording the transfer from Revaluation Surplus to Retained Earnings is also described.

Introduction

The carrying amount of an item of PPE may be different from its fair value, due to changes in its valuation. *Revaluation is a process of placing a different valuation on an asset from its carrying amount*. It is the recording of an asset at its **fair value**.

After recognition as an asset, an item of PPE, whose fair value can be measured reliably, shall be carried at a revalued amount, being its fair value at the date of revaluation *less* any subsequent accumulated depreciation and subsequent accumulated impairment losses. In regard to an asset, fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date.

If an item of PPE is revalued, the entire class of PPE to which the asset belongs shall be revalued. A class is a grouping of assets of a similar nature, eg, land, land and building, plant and machinery, motor vehicles etc.

For example, an entity has 3 machines – X, Y and Z which make up an entire class of PPE. The entity decides to revalue X and Y only. The following table shows a meaningful comparison among the carrying amounts derived thereon –

Carrying Amount	X	Y	Z	Total
Before revaluation	40	50	60	150
After revaluation of the entire class	48	56	32	136
After revaluation of X and Y, not Z	48	56	60	164

When an item of PPE is revalued, any accumulated depreciation at the date of revaluation is treated in one of the following ways –

- restated proportionately with the change in gross carrying amount

or

- eliminated against the gross carrying amount of the asset and the net amount transferred to the revalued amount of the asset.

The revaluation of an item of PPE gives rise to increase in equity. While the increase meets the definition of income, it is not included in the income statement under physical concept of capital maintenance. Instead, the item is included in Other Components of Equity as Revaluation Surplus. Therefore, if an asset's carrying amount is increased as the result of a revaluation, the increase shall be recognised in Other Comprehensive Income (net of tax) and accumulated in Other Components of Equity under the heading **Revaluation Surplus**. In a subsequent year, if the asset's carrying amount is decreased as the result of a revaluation, the decrease shall be recognised in Other Comprehensive Income to the extent of any credit balance existing in the Revaluation surplus in respect of that asset. The decrease recognised in Other Comprehensive Income reduces the amount accumulated in Other Components of Equity.

The revaluation of an item of PPE –

- affects ***accounting profit*** [1] and ***carrying amount*** [2] of the asset.
- does not affect ***taxable profit (tax loss)*** [3] and ***tax base*** [4] of the asset.

Definitions

[1] **Accounting profit** is profit or loss for a reporting period before deducting tax expense.

[2] **Carrying amount** is the amount at which an asset is recognised after deducting any accumulated depreciation and accumulated impairment losses.

[3] **Taxable profit (tax loss)** is the profit (loss) for a reporting period, determined in accordance with the rules established by the taxation authorities, upon which income taxes are payable (recoverable).

[4] The **tax base** of an asset is the amount that will be deductible for tax purposes against any taxable economic benefits that will flow to an entity when it recovers the carrying amount of the asset.

When as asset is revalued and there is a revaluation surplus, 6 adjustments are to be made –

1. The carrying amount of the asset is increased to its fair value, but there is no effect on the tax base of the asset.
2. A revaluation surplus is created by the increase in carrying amount of the asset and accumulated in Other Components of Equity (net of tax).
3. A taxable temporary difference arises, and results in a deferred tax liability since the carrying amount of the asset becomes higher than its tax base.
4. Due to an increase in the carrying amount of the asset, the total depreciation charge increases.
5. As a result of increased depreciation, the profit for the period is reduced.
6. If a part of the revaluation surplus is transferred to retained earnings (not through profit or loss) during the usage of the asset, the amount is the difference between the depreciation based on revalued amount and depreciation based on cost, net of tax, in Statement of Changes in Equity.

Our observation

A Revaluation should take place either at the beginning or at the end of the reporting period. If the revaluation takes place at the beginning of the reporting period, all the above six adjustments are to be made in that reporting period. If the revaluation takes place at the end of the reporting period, then the first three adjustments are to be made in that reporting period and the remaining three in the subsequent period.

This Case Study relates to the following Standards –

1. Ind AS 12 – Income taxes;
2. Ind AS 16 – Property, Plant and Equipment; and
3. Ind AS 33 – Earnings per Share

Case Study

On 1 April 20x1, ABC Ltd has 100 ordinary shares of CU 10 each and purchased an item of PPE for CU 100. Depreciation is charged using the straight-line method @ 25% per year. Income tax authorities allow depreciation at 20% per year also using the straight-line method. The fair value of the PPE is CU 90 on 31 March 20x2 and CU 20 on 31 March 20x4. Profit before depreciation is CU 100 per year. Income tax rate is 40%.

Balance Sheet as at 31 March (Extract)

	NOTES	20x2	20x3	20x4	20x5
Assets					
Non-current assets					
Property, plant and equipment	**1**	90	60	20	–
Deferred tax asset	**3**	2	4	8	–
Equity					
Share capital		1,000	1,000	1,000	1,000
Other components of equity		9	6	–	–
Liabilities					
Non-current liabilities					
Deferred tax liability	**4**	6	4	–	–

Statement of Profit and Loss for the year ended 31 March (Extract)

	NOTES	20x2	20x3	20x4	20x5	20x6
Profit before depreciation		100	100	100	100	100
Depreciation		25[1]	30[2]	30[3]	20[4]	–
Accounting profit		75	70	70	80	100
Tax expense	**5**	30	28	28	32	40
Profit for the period		45	42	42	48	60
Other comprehensive income						
Revaluation surplus		15[5]		(10)[6]		
Less Income tax relating to the above @ 40%		(6) 9		4 (6)		
Total Comprehensive Income		**54**	**42**	**36**	**48**	**60**
Basic earnings per share	**6**	**0.45**	**0.42**	**0.42**	**0.48**	**0.60**

[1] (100 ÷ 4) [2] (90 ÷ 3) [3] (90 ÷ 3) [4] Balance [5] (90 – 75) [6] (30 – 20)

Statement of Changes in Equity for the year ended 31 March (Extract)

	Share Capital	Other components of equity (net of tax)		
		20x2	20x3	20x4
	1,000			
Revaluation Surplus				
Balance bf		–	9	6
Recognised through other comprehensive income		9	–	–
Transferred to retained earnings		–	(3)[1]	–
Derecognised through other comprehensive income		–	–	(6)[2]
Balance cf	1,000	9	6	–

[1]A portion of revaluation surplus in respect of property, plant and equipment is transferred directly to retained earnings, ie, not through Profit or loss. The amount of surplus transferred is the net of tax difference between depreciation based on the revalued carrying amount of property, plant and equipment (CU 30) and depreciation based on property, plant and equipment's original cost (CU 25). The amount transferred is: (CU 30 – CU 25) x 60% = CU 3.

[2] The recognition of a downward revaluation causes a reversal of revaluation surplus and the corresponding deferred tax liability, which is derecognised through Other Comprehensive Income.

NOTES

(1) Property, Plant and Equipment

Date	Heads of Account	Carrying amount			Tax Base		Original cost	
		Dr	Cr	Balance		Balance		Balance
20x1								
Apr 1	Cash	100		100		100		100
20x2								
Mar 31	Depreciation		25	75	20	80	25	75
	Revaluation surplus	9[1]		84				
	Deferred tax liability	6[2]		90				
20x3								
Mar 31	Depreciation		30	60	20	60	25	50
20x4								
Mar 31	Depreciation		30	30	20	40	25	25
	Revaluation surplus		6[3]	24				
	Deferred tax liability		4[4]	20				
20x5								
Mar 31	Depreciation		20	–	20	20	25	–
20x6								
Mar 31	Depreciation				20	–		

[1] [60% of (90 – 75)]   [2] [40% of (90 – 75)]   [3] [60% of (30 – 20)]   [4] [40% of (30 – 20)]

Journal for Accumulated Depreciation

	20x1-x2			**20x3-x4**		
• ***Restated proportionately***						
	PPE	20		Accumulated depreciation	30	
	Accumulated depreciation		5	Revaluation surplus	6	
	Revaluation surplus		9	Deferred tax liability	4	
	Deferred tax liability		6	PPE		40
• ***Eliminated against gross carrying amount***						
	Accumulated Depreciation	25		Accumulated Depreciation	60	
	PPE		10	Revaluation surplus	6	
	Revaluation surplus		9	Deferred tax liability	4	
	Deferred tax liability		6	PPE		70

(2) Current Tax Expense

	20x2	20x3	20x4	20x5	20x6
Accounting profit	75	70	70	80	100
Add back: Depreciation charged	25	30	30	20	–
	100	100	100	100	100
Deduct: Depreciation allowed	20	20	20	20	20
Taxable Profit	80	80	80	80	80
Current tax expense at 40%	**32**	**32**	**32**	**32**	**32**

(3) Deferred Tax Asset

Date	Heads of Account	Dr	Cr	Balance
20x2				
Mar 31	Deferred tax income	2[1]		2
20x3				
Mar 31	Deferred tax income	2[2]		4
20x4				
Mar 31	Deferred tax income	4[3]		8
20x6				
Mar 31	Tax expense		8	–

[1] A deductible temporary difference arises in Profit or loss, and results in a deferred tax asset, when the carrying amount of PPE, before revaluation, (75) is less than its tax base (80). Therefore, the amount of deferred tax asset is (80 – 75) x 40% = 2.

Journal

Deferred tax asset	2	
Deferred tax income		2

[2] There is no taxable/deductible temporary difference in Profit or loss, since the carrying amount of PPE (60) is equal to its tax base (60). Therefore, no deferred tax arises through Profit or loss. Since a deferred tax liability of 4 already exists (after reclassification of 2), an equal amount of deferred tax asset (ie, 4) is to be created. Again, a deferred tax asset of 2 already exists. Therefore, the balance of deferred tax asset (4 - 2) has to be created.

Journal

Deferred tax asset	2	
Deferred tax income		2

[3] A deductible temporary difference arises in Profit or loss, and results in a deferred tax asset, when the carrying amount of PPE, after downward revaluation, (20) is less than its tax base (40). Therefore, the amount of deferred tax is: (40 – 20) x 40% = 8. Since a deferred tax asset of 4 already exists, the balance of deferred tax asset is to be created, ie, 4 (8 – 4).

Journal

Deferred tax asset	4	
Deferred tax income		4

(4) Deferred Tax Liability

Date	Heads of Account	Dr	Cr	Balance
20x2				
Mar 31	Revaluation surplus		6[1]	6
20x3				
Mar 31	Tax expense	2[2]		4
20x4				
Mar 31	Revaluation surplus	4[3]		–

[1] Recognised

[2] Reclassified

[3] Derecognised

(5) Tax Expense

Date	Heads of Account	NOTES	Dr	Cr	Balance
20x2					
Mar 31	Current tax expense	**2**	32		32
	Deferred tax income	**3**		2	30
	Profit or loss			30	–
20x3					
Mar 31	Current tax expense	**2**	32		32
	Deferred tax income	**3**		2	30
	Deferred tax liability	**4**		2	28
	Profit or loss			28	–
20x4					
Mar 31	Current tax expense	**2**	32		32
	Deferred tax income	**3**		4	28
	Profit or loss			28	–
20x5					
Mar 31	Current tax expense	**2**	32		32
	Profit or loss			32	–
20x6					
Mar 31	Current tax expense	**2**	32		32
	Deferred tax asset	**3**	8		40
	Profit or loss			40	–

(6) Earnings per Share

	20x2	20x3	20x4	20x5	20x6
Profit for the period (A)	45	42	42	48	60
Number of shares (B)	100	100	100	100	100
Basic Earnings per Share (A ÷ B)	**0.45**	**0.42**	**0.42**	**0.48**	**0.60**

Conclusion

The increase in the price of an asset held over the period, conventionally referred to as a holding gain, is, conceptually profit. Thus, the upward revaluation of an asset gives rise to an increase in equity. While the increase meets the definition of income (as per Conceptual Framework for Financial Reporting), Ind AS 16 does not permit this income to be recognised in Profit or loss. Instead, it is included in Other Components of Equity as Revaluation Surplus through Other Comprehensive Income.

As a result of upward revaluation, the carrying amount of the asset is increased, but the tax base of the asset is not adjusted. Therefore, when the carrying amount of the asset exceeds its tax base, the amount of taxable economic benefit will exceed the amount that will be allowed as a deduction for tax purposes. The difference between the carrying amount of a revalued asset and its tax base is a taxable temporary difference that results in a deferred tax liability.

A portion of the Revaluation surplus is transferred directly to Retained Earnings (ie, not though Profit or loss), as the asset is used by ABC Ltd. When ABC Ltd makes such a transfer, the amount transferred is net of any related deferred tax liability.

Got any questions? Get in touch

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