

Accounting B

LECTURE 1: NON-CURRENT ASSETS

Recording, expensing and reporting non-current assets

- Asset: a resource controlled by an entity because of past events and from which future economic benefits are expected to arise
- Non-current asset: any tangible resource that is expected to be used in the normal course of operations for more than one year, and is not intended for resale
- Reported on the balance sheet
- Classified as “non-current” because they are used for more than one year
- Not intended for resale
- Used in normal course of operations

Recording Non-Current Assets

- Follows cost principle – non-current assets are recorded at cost of acquisition
- Includes all costs incurred during delivery of assets, installation and preparations to use

Expensing non-current assets

- As a non-current asset is used, it's converted to an expense
- The expensing of non-current assets is accomplished through depreciation
- Depreciation: process of allocating cost of non-current assets over its useful life
 - o Matching principle: as non-current assets are used to generate revenue for multiple periods, some of its cost should be expensed in, or matched to, those same periods
 - o Depreciation expense: amount of expenses recognised in each period
 - o Accumulated depreciation: cumulative amount of depreciation expense recognised to date
 - o Depreciation is a process of allocating an asset's cost, not a method of determining an asset's market value
- Depreciation applies to non-current assets, but not all non-current assets get depreciated
- Depreciation only applies to assets with limited useful lives
- Most non-current assets (i.e. equipment, buildings) have unlimited useful lives and are therefore subject to depreciation
- Land has unlimited useful life, and is not subject to depreciation

Calculating depreciation expenses

- When a company owns depreciable assets, it must calculate depreciation expenses each period
- Cost: the historical cost of the asset being depreciated (amount recorded when asset purchased)
 - o Residual value: market value of the asset at the end of its useful life – amount the company expects to receive when the asset is sold, traded in, or scrapped
 - o Depreciable amount: difference between an asset's cost and its residual value in the assets net cost to the company – total amount that should be depreciated over time
 - o Useful life: length of time the asset will be used in operations
 - o Depreciation method: method used to calculate depreciation expenses

Recording Depreciation

- Depreciation expense is calculated at the end of an accounting period and recorded with an adjusting journal entry
- Dr Depreciation expense (expense increasing)
 - o Cr Accumulated depreciation (contra asset increasing)
- Accumulated depreciation is a contra-asset account, meaning that it sits just below the asset, and its accumulating balance is subtracted from the asset account to yield the carrying amount of the NCA
- Carrying amount gets lower over time

Where is depreciation reported?

- Depreciation expense is reported on the statement of comprehensive income (Profit and loss statement)

- Accumulated depreciation is reported on the statement of financial position (Balance sheet)

Straight-line method

- Spreads depreciation expense evenly over each year of the asset's useful life
- Depreciable amount of asset is divided by the useful life of the asset to yield the amount of depreciation expense per period

$$\text{Depreciation Expense} = \frac{\text{Cost} - \text{Salvage Value}}{\text{Useful Life}}$$

Example: annual depreciation expense for delivery truck

$$\text{Depreciation Expense} = \frac{\$65,000 - \$15,000}{5} = \$10,000$$

31 Dec. 2013	Depreciation Expense	10000		
	Accumulated Depreciation		10000	
	Assets	=	Liabilities	+ Equity
	-10000			-10000

- The same entry would be made at the end of every year until the end of 2017
- Depreciation schedule highlights:
 - o Depreciation expense is same in each period (true under straight-line method)
 - o Accumulated depreciation account grows by \$10,000 each year until the balance equals depreciable amount of asset
 - o The carrying amount decreases by \$10,000 each year until it equals the residual value estimated for the asset – an asset's final carrying amount should always equal the estimated residual value at the end of the asset's useful life
- Carrying amount (net value, book value) = cost – accumulated depreciation
I.e. carrying amount after year 1: 65,000 – 10,000 = 55,000

Year	Calculation	Depreciation expense	Accumulated depreciation	Carrying amount
			\$ 0	\$65 000
2013	(\$65 000 - \$15 000) / 5	\$10 000	\$10 000	\$55 000
2014	(\$65 000 - \$15 000) / 5	\$10 000	\$20 000	\$45 000
2015	(\$65 000 - \$15 000) / 5	\$10 000	\$30 000	\$35 000
2016	(\$65 000 - \$15 000) / 5	\$10 000	\$40 000	\$25 000
2017	(\$65 000 - \$15 000) / 5	\$10 000	\$50 000	\$15 000

On the above depreciation schedule, notice how the straight-line method:

- shows the same depreciation every year
- accumulated depreciation grows \$10,000 yearly until the balance equals the depreciable cost of the asset
- Carrying amount decreases \$10,000 yearly until it equals the salvage value estimated for the asset

Reducing-balance method

- An accelerated method that results in more depreciation expense in the early years of an asset's life and less depreciation expense in the later years of an asset's life
- Thought to be more accurate in reflecting the pattern of use and value of the benefit gained from the use of the asset
- More depreciation expense is recorded when the asset is more useful
- To calculate depreciation expense, the rate of depreciation is determined by:
- Depreciation Expense = 2 * (1/Useful life) * Carrying Amount
 - o The above formula is referred to as 2 times the straight-line rate. We sometimes use 1.5 times the straight-line rate
 - o This often means the last depreciation expense calculation is to reduce the book value to the residual value

Key Formula 8.2: Reducing-Balance Method

$$\text{Depreciation} = \text{Depreciation Rate} \times \text{Carrying Amount}$$

$$= (\text{Straight-Line Rate} \times 1.5) \times (\text{Cost} - \text{Accumulated Depreciation})$$

- Because an asset's carrying amount declines as the asset is depreciated, the amount of depreciation expense will differ each period
- The amount of depreciation expense will decrease each period as the depreciation rate applied is to a smaller amount

Year	Calculation	Depreciation expense	Accumulated depreciation	Carrying amount
2013	$(20\% \times 1.5) \times (\$65,000 - \$0)$	\$19,500	\$ 0	\$65,000
2014	$30\% \times (\$65,000 - \$19,500)$	13,350	33,150	45,500
2015	$30\% \times (\$65,000 - \$33,150)$	9,555	42,750	31,850
2016	$30\% \times 22,295$	6,689	49,394	22,295
2017	Cannot be $30\% \times \$15,606$	+606	54,076	15,606
		606 only	50,000 maximum	15,000 minimum

Units-of-activity method

- Calculates depreciation based on use
- Method is limited to assets whose units-of-activity can be measured
- Relies on an estimate of an asset's lifetime activity

$$\text{Depreciation Expense per Unit} = \frac{\text{Cost} - \text{Salvage Value}}{\text{Useful Life in Units}}$$

$$\text{Depreciation Expense} = \text{Depreciation Expense per Unit} \times \text{Actual Units of Activity}$$

- Depreciable amount is divided by estimated life, but instead of calculating depreciation expense per year, depreciation expense per unit is calculated
- Once depreciation expense per unit is known, depreciation expense is determined by multiplying the per-unit rate by the actual units of activity during period

Example:

- Truck has driven 100,000km
- Depreciation per km is \$0.50

$$\begin{aligned} \text{Expense per Unit} &= \frac{\$65\,000 - \$15\,000}{100\,000 \text{ kilometers}} \\ &= \$0.50 \text{ per kilometers} \end{aligned}$$

Adjustments for useful life

- Since non-current assets are used for multiple years, companies sometimes need to make adjustments as new information is available, or new activity occurs
- Adjustments include
 - o Changes in estimates
 - o Additional expenditures to improve non-current asset
 - o Significant declines in asset's net realisable value

Changes in depreciation estimates

- Company estimates the asset's useful life and its residual value
- Estimates are usually based on the company's previous experience with similar assets
- Small errors will not affect decision making
- When estimates are changed, the change is made prospectively, meaning that the change only affects the calculation of current and future depreciation expense

Example

- Jan 1, 13: purchased machine \$90,000
- 10-year useful life
- \$10,000 residual value
- Straight-line method of depreciation and records \$8,000 of depreciation expense

31 Dec.	Depreciation Expense	8 000			
	Accumulated Depreciation			8 000	
	(To record depreciation expense)				
	Assets	=	Liabilities	+	Equity
	-8 000				-8 000

- Jan 1, 17: decided machine will only last 8 years rather than 10
- New residual value \$6,000
- Thomas did not correct the four previous depreciation expense entries of \$8,000 because they were based on reasonable estimates of the time
- He calculates the remaining depreciable amount of the asset and spreads it out over the remaining useful life

Carrying amount at the time of estimate revision:	
Cost of the asset, 1 January 2013	\$90 000
Less: Accumulated depreciation for four years	<u>32 000</u>
Carrying amount on 1 January 2017	<u>\$58 000</u>

- He subtracts from the carrying amount the asset's residual value, which results in the remaining depreciable amount

Depreciable amount for future depreciation:	
Carrying amount on 1 January 2017	\$58 000
Less: Estimated residual value	<u>6 000</u>
Remaining depreciable amount	<u>\$52 000</u>

- He calculates depreciation expense by dividing the remaining depreciable amount by the remaining useful life
- Total useful life is now 8, not 10, which means there are only 4 years remaining

Depreciation expense under revised estimates:	
Remaining depreciable amount	\$52 000
Divided by remaining useful life	<u>4</u>
Annual depreciation expense	<u>\$13 000</u>

- He would make the following journal entry at the end of years 5 to 8

31 Dec.	Depreciation Expense	13 000		
	Accumulated Depreciation		13 000	
	(To record depreciation expense)			
	Assets	=	Liabilities	+ Equity
	-13 000			-13 000

- So he depreciates \$8,000 per year in years 1-4 and \$13,000 per year in years 5-8
- Total depreciation is \$84,000 over the life of the asset
- $90,000 - 84,000 = 6,000$ (residual value)

Expenditures after acquisition

- Most non-current assets require expenditures throughout their useful lives
- The accounting treatment for expenditures made during the useful life of a non-current asset depends on whether they are classified as “capital” or “revenue” expenditures
- Capital expenditure increases the expected useful life or productivity of the asset; increases the asset value
- Revenue expenditure maintains the expected useful life or productivity of the asset; increase an expense account