

#### 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
  - 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
  - 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)
  - 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 it's 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 is 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

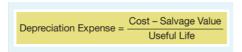
### Where is depreciation reported?

- 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



Example: annual depreciation expense for delivery truck

Depreciation Expense = 
$$\frac{\$65\,000 - \$15\,000}{5}$$
 = \$10 000  
31 Dec. Depreciation Expense 10 000  
2013 Accumulated Depreciation 10 000  
Assets = Liabilities + Equity -10 000

- 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)
  - Accumulated depreciation account grows by \$10,000 each year until the balance equals depreciable amount of asset
  - 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 <u>same</u> 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 <u>salvage value</u> 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
  - The above formula is referred to as 2 times the straight-line rate. We sometimes use 1.5 times the straight-line rate
  - This often means the last depreciation expense calculation is to reduce the book value to the residual value

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Key Formula 8.2: Reducing-Balance Method

Depreciation = Depreciation Rate × Carrying Amount

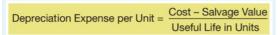
= (Straight-Line Rate × 1.5) × (Cost – Accumulated Depreciation)
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- Because an asset's carrying amount declines as the asset is depreciated, the amount of depreciation expense will differ each period
- The amount of depreciation expense will decease each period as the depreciation rate applied is to a smaller amount

Year	Calculation	Depreciation expense	Accumulated depreciation	Carrying amount
			0 \$	\$65,000
2013	$(20\% \times 1.5) \times (\$65000 - \$0)$	\$19500	19 500	45 500
2014	30% × (\$65000 - \$19500)	13350	33 150	31850
2015	30% × (\$65000 - \$33150)	9555	42 750	22 295
2016	30% × 22 295	6899	49394	15 606
2017	Cannot be 30% × \$15606	4682	54076	10.924
		606 only	50000 maximum	15000 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



Depreciation Expense = Depreciation Expense per Unit × 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

Expense per Unit =  $\frac{\$65000 - \$15000}{1000000 \text{ kilometers}}$ = \$0.50 per kilometers

# 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.	31 Dec. Depreciation Expense  Accumulated Depreciation  (To record depreciation expense)					8000
	Assets -8000	-	Liabilities	+	Equity -8000	

- 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	32 000
Carrying amount on 1 January 2017	\$58 000

- 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	6000
Remaining depreciable amount	\$52 000

- 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	4
Annual depreciation expense	\$13 000

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

31 Dec.		ulated	pense Depreciation depreciation e	13 000 expense)	13 000
	Assets -13 000	=	Liabilities	+	Equity -13000

- 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; incrase an expense account