Tutorial 2a
Depreciation, Disposal and
Revaluation of Fixed Assets

Tangible Fixed Assets

- Tangible Fixed Assets:
  - Acquired by the business with the intention of retaining them within the business to help generate profit
  - Tangible items that are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
  - Benefit obtained after more than one year

Depreciation

- Non current assets will be ‘used up’ or ‘worn out’ over their useful life by the business in generating revenue
- Depreciation is a measure of the wearing out, or depletion of tangible fixed assets through use, time or obsolescence
- Method of writing off the cost of an asset over its useful life in the business
How do we calculate depreciation?

- Depreciation charges should be spread fairly over the useful life of the asset, and so allocated to the accounting periods which are expected to benefit (make profits) from the asset’s use (Matching/Accruals concept)
  - Straight line method
  - Reducing Balance method

Straight Line Method

- Straight-line method:
  - The depreciation charge is the same every year
  - Depreciation = \( \frac{\text{Cost} - \text{Residual (Scrap) Value}}{\text{Useful Life}} \)

Example 1

A business buys a machine for €250,000. It is expected to have a useful life of 5 years, after which time it will have a scrap value of €50,000. Calculate the annual depreciation charge.

\[
\text{Depreciation charge per annum} = \frac{\text{Cost} - \text{Estimated residual value}}{\text{Useful Life}} \]
\[
= \frac{250,000 - 50,000}{5} \]
\[
= 40,000 \text{ depreciation charge per annum}
\]

Shown as expense in profit and loss a/c
### Net Book Value at each year end (after depreciation has been charged to P&L)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
<th>Provision for Depreciation</th>
<th>Net Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>250,000</td>
<td>40,000</td>
<td>210,000</td>
</tr>
<tr>
<td>Year 2</td>
<td>250,000</td>
<td>80,000</td>
<td>170,000</td>
</tr>
<tr>
<td>Year 3</td>
<td>250,000</td>
<td>120,000</td>
<td>130,000</td>
</tr>
<tr>
<td>Year 4</td>
<td>250,000</td>
<td>160,000</td>
<td>90,000</td>
</tr>
<tr>
<td>Year 5</td>
<td>250,000</td>
<td>200,000</td>
<td>50,000</td>
</tr>
</tbody>
</table>

### Example 2

A business buys a machine for €200,000. It is expected to have a useful life of 10 years, after which time it will have a scrap value of €0. Calculate the annual depreciation charge.

\[
\text{Cost} - \text{Estimated residual value} = \frac{\text{Useful Life}}{10} = 20,000\text{ depreciation charge per annum}
\]

[Note: this is 10% of original cost, and you are often advised to simply calculate straight line depreciation on this basis x% of cost]
Reducing Balance Method

- Example 3
  A business buys a machine costing €600,000. The depreciation rate is 40%.
  For years 1 to 4 show the:
  - Depreciation expense
  - Provision for Depreciation
  - Net Book Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
<th>Provision for Depreciation</th>
<th>Net book value (BS)</th>
<th>Depreciation Expense (P&amp;L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>600,000</td>
<td>240,000</td>
<td>360,000</td>
<td>240,000</td>
</tr>
<tr>
<td>Year 2</td>
<td>600,000</td>
<td>384,000</td>
<td>216,000</td>
<td>144,000</td>
</tr>
<tr>
<td>Year 3</td>
<td>600,000</td>
<td>470,400</td>
<td>129,600</td>
<td>86,400</td>
</tr>
<tr>
<td>Year 4</td>
<td>600,000</td>
<td>522,240</td>
<td>77,760</td>
<td>51,840</td>
</tr>
</tbody>
</table>

To record depreciation

- Dr Depreciation Expense a/c
- Cr Provision for Depreciation a/c
Depreciation

• What do we show in the accounts?
• Balance Sheet:
  – Cost of the Asset
  – Provision for Depreciation balance
  – Net Book Value
• Profit and loss a/c:
  – Depreciation expense for the year

Disposal

• What happens when a fixed asset is sold or disposed of?
  – Need to eliminate the asset from our records as it no longer exists
  – Need to identify if any profit or loss on disposal occurs
    • Sale Proceeds \( x \)
    • Net Book Value \( (x) \)
    • Profit or loss on disposal \( x/(x) \)

Disposal

• Example 4
  – Use information from Example 1
  – The machinery is sold at the beginning of year 3 for an amount of €150,000
Example 4

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale Proceeds</td>
<td>150,000</td>
</tr>
<tr>
<td>Net Book Value</td>
<td>(170,000)</td>
</tr>
<tr>
<td>Loss on disposal</td>
<td>(20,000)</td>
</tr>
</tbody>
</table>

To record disposal

- Dr Disposal a/c with cost of asset sold
- Cr Cost a/c with cost of asset sold
- Dr Provision for depreciation a/c with total amount of depreciation charged to date of disposal
- Cr Disposal a/c with provision for depreciation
- Dr Bank with money received on disposal
- Cr Disposal with money received on disposal
- Balance disposal account – difference equals profit/loss

Revaluation

- Sometimes the Market Value of the asset is much greater than the Book Value and we might want to reflect this value on the Balance Sheet e.g. valuation of land or buildings
Example 5

- X plc bought a commercial property in January 2010 for €450,000. They did not depreciate this property as the value was increasing rather than decreasing. In the financial statements for the year ended 31/12/13 they decided to adopt a revaluation policy and show the asset at market value of €900,000.

Example 5

- Property 450,000
- Increase in value 450,000
- Revised value 900,000

To record revaluation

- Dr Asset with increase in value
- Cr Revaluation reserve with increase in value
Let's look at some examples

- In Tutorial 2b we will look at Leaving Cert Ordinary Level 2011 Q3
- In Tutorial 2c we will look at Leaving Cert Higher Level 2013 Q2
- See: [http://www.nuigalway.ie/cairnes/leavingcert/](http://www.nuigalway.ie/cairnes/leavingcert/) for tutorials on other topics

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