Chapter 10 - Long-Term Assets

AGENDA

1. Asset VS Expense
2. Tangible Assets VS Intangible Assets
3. Long Term Asset Costs: For Land, Building, Equipment
4. Amortization – Tangible & Intangible Assets
5. Recording Amortization
6. Disposal of Long Term Assets
7. F/S Presentation
8. The Goodwill Asset

Long Term Assets: Asset VS Expense

Asset – B/S	Expense – I/S
• Usually one-time purchase	• Recurring in nature
• Additions & improvements: costs incurred to **increase** efficiency or expected life of the asset	• Ordinary repairs: expenses to **maintain** the operating efficiency and expected life of the asset
• Usually material in amount and occur infrequently	• Called operating **expenses**
• Called capital **expenditures**	DR Repairs Expense CR Cash or A/P
DR Name of Asset CR Cash or A/P	

Tangibles VS Intangibles

Long term assets are long-lived assets that are used in the operations of a business and are not intended for sale to customers.

Tangible Assets	Intangible Assets
• with physical substance	• without physical substance
• Examples: – Property, plant & equipment (PPE) – Land – Buildings – Trucks	• Intangible assets provide future economic benefits through the special rights & privileges they convey.
• Natural resources such as mineral deposits, oil and gas reserves, and timber	• Examples: – Patents, copyrights, sports contracts, trademarks, franchise license, R&D costs – Goodwill

Determination of Long Term Asset Costs

- When buying an asset, determine if it is:
  - For short term or long term
  - Tangible or intangible
- All long term assets are recorded at cost in accordance with the **cost principle.**
- Cost includes expenditures to:
  - purchase the asset, and
  - make it ready for its intended use
- Include purchase price, freight costs, and installation costs.

Measurement of Long Term Asset Costs

- Option 1: amount paid in a transaction
- Option 2: FMV of the asset given as payment

DR Name of Asset
CR Cash or A/P

Example 1: Purchased a machine for $1,000. Paid freight of $200 and installation of $300.

DR Machine	1,500	
CR Cash or A/P		1,500

Example 2: Traded-in a car with FMV of $2,000 & paid an additional $3,000 to buy a truck.

DR Truck	5,000	
CR Car		2,000
CR Cash		3,000

Long Term Asset: Land

Land is a special type of asset:
- Can not be amortized
- Cost of land includes 5 items

The cost of Land includes:
1. Purchase price
2. Closing costs such as title & legal fees
3. Accrued property taxes & other liens
4. All costs incurred in making it ready for its intended use
5. Land improvements – all expenditures necessary to make the improvements ready for their intended use:
   - •parking lots
   - •fencing
   - •landscaping
   - •lighting

Long Term Asset: Land

Example: Purchased a piece of land:

- Purchase price $50,000
- Closing costs $1,000
- Accrued property taxes $2,000
- Levelling & landscaping $7,000
- Fencing & gating $2,000
- Lighting $3,000
- Parking lot $20,000
- Accounting fee $1,000
- Business consulting fee $500

DR Land 85,000
CR Cash or A/P 85,000

Long Term Assets: Buildings & Equipment

Buildings

- Cost includes all necessary expenditures relating to the purchase or construction.
- If Purchasing: purchase price, legal fees, closing costs, & renovation costs.
- If Constructing: materials, contractor payments, architect & accounting fees, building permits, interest payments during construction, & cleaning expenses.

Equipment

Cost includes:

- purchase price,
- freight charges
- insurance paid by the purchaser during transit
- Assembling costs
- Installation fee
- testing costs

Amortization

- Amortization is the process of allocating **to expense the cost of a long term asset** over its useful life in a rational and systematic manner.
- Cost allocation is designed to provide for the proper matching of expenses with revenues in accordance with the matching principle.
- Land is the only asset that is NOT amortized.

Amortization

- Cost of Long Term Asset: all expenditures necessary to purchase the asset and make it ready for its intended use.
- Useful Life: estimate of expected life of asset.
- Salvage Value: estimate of asset's value at the end of its useful life.
- Net Book Value
  = Original cost of the asset
  – Accumulated amortization

Amortization Methods

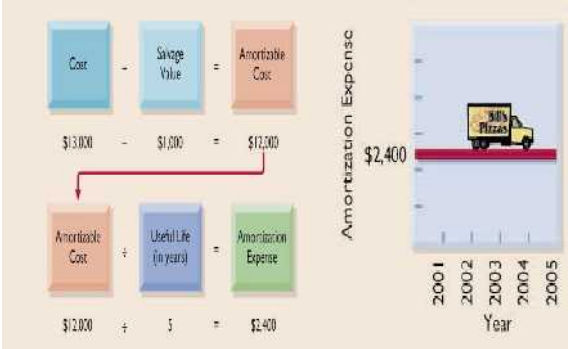
•3 methods of recognizing amortization:

1. Straight-line
2. Declining balance
3. Units of activity

•Each method is acceptable under GAAP & IFRS.
•Management selects the method that is appropriate for the asset & their company.
•Once a method is chosen, it is applied consistently.

•The most used method is straight-line
  –Simple to use by accountants
  –Simple to understand by users
  –All amortization is an estimate anyway
  –Salvage value is used for straight line and units of activity methods

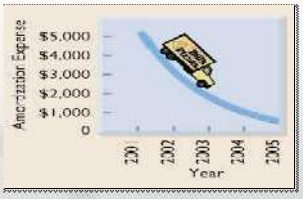
Straight line method



Declining Balance Method

The amortization rate (%) remains constant from year to year, but the NBV to which the rate is applied declines each year.

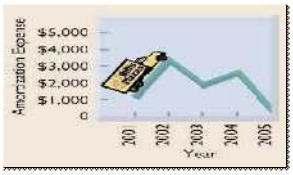
Net Book Value (at beginning of year) × Amortization Rate = Amortization Expense



Units of Activity Method

Cost – Salvage Value ÷ Total Units of Activity = Amortizable Cost per Unit

Amortizable Cost per Unit × Units of Activity during the Year = Amortization Expense



Recording Amortization

- A contra asset account is created, called **"Accumulated Amortization, Asset Name"**
- This account is displayed on the B/S
- At the end of the fiscal period,

DR Amortization Expense, Asset Name
CR Accumulated Amortization, Asset Name

Amortization: An Example

- Purchased a machine for $9,000 and installation cost of $1,000. Useful life is 4 years. Salvage value is $0. The rate of amortization is 20%. It can produce 2,000 units in year 1 and 4,000 units in years 2, 3, and 4.

DR Machine 10,000
CR Cash 10,000

Straight-Line Method:
($10,000 - $0) / 4 years = $2,500 per year

DR Amortization Expense, Machine 2,500
CR A/A, Machine 2,500

Amortization: An Example

Declining Balance Method:
Year 1: $10,000 * 0.2 = $2,000
Year 2: ($10,000 - $2,000) * 0.2 = $1,600
Year 3: ($10,000 - $2,000 - $1,600) * 0.2 = $1,280

DR Amortization Expense 2,000 / 1,600 / 1,280
CR A/A, Machine 2,000 / 1,600 / 1,280

Units of Activity Method:
(($10,000 - $0)) / (2,000 + 4,000 + 4,000 + 4,000)) = $0.714286
Year 1: $0.714286 * 2,000 = $1,428.57
Year 2: $0.714286 * 4,000 = $2,857.14

DR Amortization Expense 1,428.57 / 2,857.14
CR A/A, Machine 1,428.57 / 2,857.14

Disposal of Long Term Assets

Long term assets may be disposed off by:
a) retirement (throwing out)
b) sale
c) exchange

1. Record the partial year amortization:
DR Amortization Expense, Name of Asset
CR Accumulated Amortization, Name of Asset

2. Calculate NBV: Original Cost – A/A

Disposal of Long Term Assets

3. Compare NBV to proceeds of sale ($$ you get)
   Option1: Proceeds > NBV = GAIN (CR)
   Option 2: Proceeds < NBV = LOSS (DR)

4. Record the disposal of the asset

DR Cash
DR A/A of the asset
CR Asset
CR Gain on asset disposal

IF GAIN

DR Cash
DR A/A of the asset
DR Loss on asset disposal
CR Asset

IF LOSS

Intangible Assets

- Intangible assets are rights, privileges, & competitive advantages that result from the ownership of long-lived assets that do not possess physical structure.
- In general, accounting for intangible assets is similar to accounting for tangible assets.
- Intangible assets are also:
  - recorded at cost
  - amortized over their useful life in a rational and systematic manner
  - at disposal, net book value is eliminated and gain/loss, if any, is recorded

Amortization of Intangible Assets

Amortizable	Unamortizable
• Have defined lives • Straight-line method of amortization is used Examples: • Patents: 20 years • Copyrights: life + 50 years • R&D Costs: life of product • Franchise: # of years in contract • License: # of years of license	• Have indefinite useful lives • Do not amortize • Test for impairment is used Examples: • Goodwill • Trademarks

F/S Presentation of L/T Assets

- B/S – under the heading "Long Term Assets":
  - Property, Plant, and Equipment (PPE)
  - Other tangible assets
  - Intangible assets
- In the B/S or in the notes, all $$ balances of each asset & A/A of each asset is disclosed.
- The amortization methods used are disclosed & described.
- The $$ amount of amortization expense for the period is disclosed for each asset.

Goodwill

- Value given to the good reputation and profitability of a business
  - Brand value, customer loyalty, employee happiness
  - Extremely difficult to put a $$ value
- Valued only when a business is sold/bought

Goodwill = Purchase Price – FMV of Assets

DR Goodwill
CR Cash or A/P

- No Amortization
- Annual test for impairment

Goodwill – Test for Impairment

- Once recognized, the value of goodwill can not increase unless another business is purchased or another brand is created
- A test for impairment must be completed annually
- Outside consultants value goodwill

q Result 1: Goodwill $$ increases or stays the same
§ No journal entries

q Result 2: Goodwill $$ decreases
DR Goodwill Impairment Loss
CR Goodwill
§ Brand recognition decreased, negative publicity, etc