Objectives

Chapter 10

- You should be able to
  - Identify components of historical cost of land, buildings, and equipment and classification incentives
  - Capitalize interest appropriately
  - Account for the disposal of PPE under various conditions
  - Identify and account for subsequent expenditures
  - Describe the differences between US GAAP and IFRS in accounting for PPE
Capitalization of Interest

- Mandatory under both US GAAP and IFRS

- Capitalization period
  - expenditures have been made
  - construction in progress
  - interest costs are incurred

- Capitalization amount: lower of avoidable interest or actual interest
  - Avoidable interest
    > weighted average of actual expenditures
    X Construction Interest rate
  - Actual interest
Situation II: During 2014, Midori Ito Corporation constructed and manufactured certain assets and incurred the following interest costs in connection with those activities.

<table>
<thead>
<tr>
<th>Interest Costs Incurred</th>
</tr>
</thead>
<tbody>
<tr>
<td>$30,000</td>
</tr>
<tr>
<td>9,000</td>
</tr>
<tr>
<td>8,000</td>
</tr>
</tbody>
</table>

Warehouse constructed for Ito's own use
Special-order machine for sale to unrelated customer, produced according to customer's specifications
Inventories routinely manufactured, produced on a repetitive basis

All of these assets required an extended period of time for completion.

Instructions
Assuming the effect of interest capitalization is material, what is the total amount of interest costs to be capitalized?

- Self constructed OK to Capitalize
- Interest
- Intended for sale or lease but a discrete project OK to Capitalize
- Inventories No!
Situation III: Peggy Fleming, Inc. has a fiscal year ending April 30. On May 1, 2014, Peggy Fleming borrowed $10,000,000 at 11% to finance construction of its own building. Repayments of the loan are to commence the month following completion of the building. During the year ended April 30, 2015, expenditures for the partially completed structure totaled $7,000,000. These expenditures were incurred evenly throughout the year. Interest earned on the unexpended portion of the loan amounted to $650,000 for the year.

Instructions
How much should be shown as capitalized interest on Peggy Fleming's financial statements at April 30, 2015?

(CPA adapted)

\[
\text{WAAC} = \frac{7,000,000}{2} = 3,500,000 \times 11\% = 385,000
\]

\[
\text{Actual} = \frac{10,000,000 \times 11\% \times 1}{1} = 1,100,000
\]
Situation I: On January 1, 2014, Oksana Baiul, Inc. signed a fixed-price contract to have Builder Associates construct a major plant facility at a cost of $4,000,000. It was estimated that it would take 3 years to complete the project. Also on January 1, 2014, to finance the construction cost, Oksana Baiul borrowed $4,000,000 payable in 10 annual installments of $400,000, plus interest at the rate of 10%. During 2014, Oksana Baiul made deposit and progress payments totaling $1,500,000 under the contract, the weighted-average amount of accumulated expenditures was $800,000 for the year. The excess borrowed funds were invested in short-term securities, from which Oksana Baiul realized investment income of $250,000.

Instructions
What amount should Oksana Baiul report as capitalized interest at December 31, 2014?

\[
\text{Available Interest} = \$80,000
\]

\[
\text{Actual Interest} = \$4,000,000 \times 10\% \times 1 = \$400,000
\]
On December 31, 2013, Main Inc. borrowed $3,000,000 at 12% payable annually to finance the construction of a new building. In 2014, the company made the following expenditures related to this building: March 1, $360,000; June 1, $600,000; July 1, $1,500,000; December 1, $1,500,000. The building was completed in February 2015. Additional information is provided as follows.

1. Other debt outstanding
   10-year, 13% bond, December 31, 2007, interest payable annually $4,000,000
   6-year, 10% note, dated December 31, 2011, interest payable annually $1,600,000
2. March 1, 2014, expenditure included land costs of $150,000 $49,000
3. Interest revenue earned in 2014

Instructions
(a) Determine the amount of interest to be capitalized in 2014 in relation to the construction of the building.
(b) Prepare the journal entry to record the capitalization of interest and the recognition of interest expense, if any, at December 31, 2014.

\[
\text{WAASE Amount} = \frac{\text{Capital Period}}{\text{WAASE}}
\]

\[
\begin{align*}
3\% & \quad $360,000 \times \frac{1}{12} \\
6\% & \quad 600,000 \times \frac{7}{12} \\
7\% & \quad 1,500,000 \times \frac{6}{12} \\
1\% & \quad 1,500,000 \times \frac{1}{2} \\
\end{align*}
\]

\[
\frac{3,960,000}{1,525,000} \times 12\% = $183,000
\]

Avoidable Interest
Actual Interest

Const. Loan * 3,000,000 * 12.5% * 1 = 360,000

LTBP

4,000,000 * 13% * 1 = 520,000

LTNP

1,600,000 * 10% * 1 = 160,000

Actual Interest = 1,040,000

Dr. Bbg

Int. Exp. = 183,000

Int. Payoff Cash => $1,040,000
On 7/31/2014 A Company engaged Minsk Tooling Company to construct a special-purpose piece of factory machinery. Construction was begun immediately and was completed on 11/1/2014. To help finance construction, on 7/31 A issued a $300,000, 3-year, 12% note payable at Netherlands National Bank, on which interest is payable each 7/31. $200,000 of the proceeds of the note was paid to Minsk on 7/31. On 11/1 A made a final $100,000 payment to Minsk. Other than the note to Netherlands, A’s only outstanding liability at 12/31/2014 is a $30,000, 8%, 6-year note payable, dated 1/1/11, on which interest is payable each 12/31.

(a) Calculate the interest revenue, weighted-average accumulated expenditures, avoidable interest, and total interest costs to be capitalized during 2014.

(b) Prepare the journal entries at:

1. 7/31/2014:
   - Dr Cash 300,000
   - Dr Int+Exp (plug) 11,400
   - Cr Note Payable 300,000
   - Cr cash (other) 24,000
   - Dr Int+Pay 15,000
   - Dr Machine 200,000
   - Cr TS 100,000
   - Dr Machine 100,000
   - Cr Cash 100,000

2. 11/1/2014:
   - Dr Cash 102,500
   - Dr Int+Exp 2,500
   - Cr TS 102,500
   - Dr Machine 100,000
   - Cr Cash 100,000

3. 12/31/2014:
Date  Expenditure  x Capital Period = WAAE
1/31  $200,000  x 3/12  = $50,000
1/1  100,000  x 1  = $50,000
Project completed 1/

Construction x 12% Rate
Available Interest $6,000

Actual Interest  by E
Cost  $300,000 x 12% x 5/12 = $15,000
Other  $30,000 x 8% x 1 = 2,400
17,400
Harrisburg Furniture Company started construction of a combination office and warehouse building for its own use at an estimated cost of $5,000,000 on January 1, 2014. Harrisburg expected to complete the building by December 31, 2014. Harrisburg has the following debt obligations outstanding during the construction period.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction loan—12% interest, payable semiannually, issued December 31, 2013</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Short-term loan—10% interest, payable monthly, and principal payable at maturity on May 30, 2015</td>
<td>$1,400,000</td>
</tr>
<tr>
<td>Long-term loan—11% interest, payable on January 1 of each year. Principal payable on January 1, 2018</td>
<td>$1,000,000</td>
</tr>
</tbody>
</table>

**Instructions**
(Carry all computations to two decimal places.)

(a) Assume that Harrisburg completed the office and warehouse building on December 31, 2014, as planned at a total cost of $5,200,000, and the weighted-average amount of accumulated expenditures was $3,000,000. Compute the avoidable interest on this project.

\[
\text{WAACE} = \frac{\text{Construction Loan} \times 12\%}{2} = \frac{2,000,000 \times 12\%}{2} = 240,000
\]

\[
\text{Other} = \frac{1,600,000 \times 10.42\%}{2} = \frac{1,600,000 \times 10.42\%}{2} = 160,720
\]

\[
\text{WAACE} = \frac{3,600,000}{2} = 1,800,000
\]

\[
\text{WAAC} = \frac{\text{Total Interest}}{\text{Total Principal}} = \frac{250,000}{2,400,000} = 10.42\%
\]

\[
\text{Total Interest} = 1,400,000 \times 10\% \times 1 = 140,000
\]

\[
\text{LT Loan} = 1,000,000 \times 11\% \times 1 = 110,000
\]

\[
\text{Construction Loan} = 2,000,000 \times 12\% \times 1 = 240,000
\]

\[
\text{Actual Interest} = 490,000
\]
Dispose of asset in exchange for

- Money: Realize Gains/Loss & Recognized

- Nonmonetary Exchange with commercial substance -- future cashflows change as a result of the transaction
  - Record New at FV & Recognize G/L

- Nonmonetary exchange of similar assets -- future cashflows don't change as a result of the transaction
  - Recognize Losses & Roll gains into Basis of New

- Exchange of similar assets with >25% cash as consideration
  - Cash Sale treatment
  - Recognize G/L
Busytown Corporation, which manufactures shoes, hired a recent college graduate to work in its accounting department. On the first day of work, the accountant was assigned to total a batch of invoices with the use of an adding machine. Before long, the accountant, who had never before seen such a machine, managed to break the machine. Busytown Corporation gave the machine plus $340 to Dick Tracy Business Machine Company (dealer) in exchange for a new machine. Assume the following information about the machines.

<table>
<thead>
<tr>
<th>Busytown Corp. (Old Machine)</th>
<th>Dick Tracy Co. (New Machine)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine cost</td>
<td>$290</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>140</td>
</tr>
<tr>
<td>Fair value</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>$270</td>
</tr>
<tr>
<td></td>
<td>-0-</td>
</tr>
<tr>
<td></td>
<td>425</td>
</tr>
</tbody>
</table>

**Instructions**

For each company, prepare the necessary journal entry to record the exchange. (The exchange has commercial substance.)

```
Cash 340

Inv 85

OGS 270

Inv Sale 270

Inv 425

Loss (85+340) 425

AD Loss plus Old Machine 290

Cash 340
```
Carlos Arruza Company exchanged equipment used in its manufacturing operations plus $3,000 in cash for similar equipment used in the operations of Tony LoBianco Company. The following information pertains to the exchange.

<table>
<thead>
<tr>
<th></th>
<th>Carlos Arruza Co.</th>
<th>Tony LoBianco Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment (cost)</td>
<td>$28,000</td>
<td>$28,000</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>19,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Fair value of equipment</td>
<td>12,500</td>
<td>15,500</td>
</tr>
<tr>
<td>Cash given up</td>
<td>3,000</td>
<td></td>
</tr>
</tbody>
</table>

**Instructions**

(a) Prepare the journal entries to record the exchange on the books of both companies. Assume that the exchange lacks commercial substance.

(b) Prepare the journal entries to record the exchange on the books of both companies. Assume that the exchange has commercial substance.
commercial substance REG & L

Gain plug

$30,000 + $12,500 = $42,500

$19,200
$36,000
$28,000
$3,000

Gain plug

$15,500 - $3,000 = $12,500

$2,500
$28,000
Cannondale Company purchased an electric wax melter on April 30, 2014, by trading in its old gas model and paying the balance in cash. The following data relate to the purchase.

\[
\begin{align*}
\text{List price of new melter} & \quad \$15,800 \\
\text{Cash paid} & \quad 10,000 \\
\text{Cost of old melter (5-year life, $700 salvage value)} & \quad 11,200 \\
\text{Accumulated depreciation—old melter (straight-line)} & \quad 6,300 \\
\text{Secondhand fair value of old melter} & \quad 5,200
\end{align*}
\]

**Instructions**

Prepare the journal entry(ies) necessary to record this exchange, assuming that the exchange (a) has commercial substance, and (b) lacks commercial substance. Cannondale’s fiscal year ends on December 31, and depreciation has been recorded through December 31, 2013.

- **April 30 Subs:**
  - **Debit:** Cash 10,000
  - **Credit:** EGmt (10,000 + 520) 15,200
  - **Credit:** AD (6300 + 700) 7000
  - **Credit:** Gain 1000
  - **Credit:** EGmt 11,200
  - **Credit:** Cash 10,000

Cash payment 7250.
DAInc. has negotiated the purchase of a new piece of automatic equipment at a price of $8,000 plus trade-in, f.o.b. factory. The traded in used equipment had originally cost $62,000; it had a book value of $42,000 and a secondhand market value of $47,800, as indicated by recent transactions involving similar equipment. Freight and installation charges for the new equipment require a cash payment of $1,100.

(a) Prepare the JE to record this transaction assuming the exchange has commercial substance.

No commercial substance?

(b) Assume the same facts as in (a) except that the FMV of assets exchanged is not determinable.

Which does the firm prefer, all else equal?
On 12/31/2014 X Inc. has a machine with a book value of $940,000.

<table>
<thead>
<tr>
<th>Machine</th>
<th>Accumulated depreciation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,300,000</td>
<td>360,000</td>
<td>$940,000</td>
</tr>
</tbody>
</table>

Depreciation is computed at $60,000 per year on a straight-line basis.

Presented below is a set of independent situations. For each, make the JE to record the transaction.

(a) A fire destroyed the machine on 8/31/2015. An insurance settlement of $430,000 was received.

(b) On 4/1/2015 X sold the machine for $1,040,000 to DY Company.

(c) On 7/31/15 the company donated this machine to the Mountain King City Council. The fair market value of the machine at the time of the donation was estimated to be $1,100,000.
Revaluation of PPE under IFRS

• Mark to Market Accounting for PPE

• Based on FMV (with reference to market prices of comparables, appraisals, or board evaluations)

• Allowable Under IFRS and most national GAAPs

• Prohibited under US GAAP

• Focus of Revaluations of PPE is balance sheet

• To recognize that PPE is undervalued by NBV:
  DR PPE (net)
  CR Revaluation Reserve (O/E)