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## Long-Term Assets Exercises I

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## Problem 1

Copenhagen Corporation obtained an investment in the stock of Amsterdam Corporation. The intent of the investment was not to obtain control or to exert significant influence. Winsloe has no plans to trade the investment for near-term profits. Following is a description of the activity related to the investment in Amsterdam Corporation:

March 5 Purchased 15,000 shares of Amsterdam Corporation at $\$ 7$ per share.

March 31 The fair value of Amsterdam Corporation's stock was $\$ 10$ per share.

April 30 The fair value of Amsterdam Corporation's stock was $\$ 6.50$ per share.

May 15 Received a dividend from Amsterdam Corporation of $\$ 0.50$ per share.

May 31 The fair value of Amsterdam Corporation's stock was $\$ 8$ per share.
a) What method should be used to account for this investment? Does management intent influence this decision? If the investment were obtained with the objective of near-term trading for profit, what would be done differently?
b) Prepare journal entries for the activity pertaining to the investment in Amsterdam Corporation.

## Worksheet

a)
b)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| 5-Mar |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 31-Mar |  |  |  |
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| 30-Apr |  |  |  |
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## Solution

a) The investment should be accounted for as an "available-for-sale" investment. Management intent is crucial to this outcome. If the intent were to trade for a near-term profit, the investment would be accounted for as a trading security, and gains/losses would be part of "operating income" rather than "other comprehensive income.
b)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :--- | ---: | ---: |
| 5-Mar | Available for Sale Securities | 105,000 |  |
|  | Cash |  | 105,000 |
|  | $\begin{array}{l}\text { To record the purchase of 15,000 shares of } \\ \\ \text { Amsterdam Corporation at \$7 }\end{array}$ |  |  |
|  |  |  | 45,000 |$]$

## Problem 2

Span Forklift invested in $\$ 100,000$ of face amount of 8 -year bonds issued by Harris BioResearch Company on January 1, 20X1. The bonds were purchased at 102, and bear interest at a stated rate of $6 \%$ per annum, payable semiannually.
a) Prepare the journal entry to record the initial investment on January, 20X1.
b) Prepare the journal entry that Span Forklift would record on each interest date.
c) Prepare the journal entry that Span Forklift would record at maturity of the bonds.
d) How much cash flowed "in" and "out" on this investment, and how does the difference compare to total interest income that was recognized?

## Worksheet

a), b), c)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue |  |  |  |
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| Interest |  |  |  |
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|  |  |  |  |
| Maturity |  |  |  |
|  |  |  |  |

d)

## Solution

a), b), c)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue | Investment in Bonds | 102,000 |  |
|  | Cash |  | 102,000 |
|  | To record the purchase of $\$ 100,000,6 \%$, 8 -year bonds at 102 -- interest semiannually |  |  |
|  |  |  |  |
| Interest | Cash | 3,000 |  |
|  | Investment in Bonds |  | 125 |
|  | Interest Income |  | 2,875 |
|  | To record the receipt of an interest payment ( $\$ 100,000$ par $X .06$ interest $X 6 / 12$ months $=\$ 3,000 ; \$ 2,000$ premium $X 6$ months/96 months $=\$ 125$ amortization) |  |  |
|  |  |  |  |
| Maturity | Cash | 100,000 |  |
|  | Investment in Bonds |  | 100,000 |
|  | To record the redemption of bond investment at maturity |  |  |

d) Total cash outflow was $\$ 102,000$, and total cash inflow was $\$ 148,000((\$ 3,000 \times 16$ periods $)+\$ 100,000)$. The $\$ 46,000$ difference is equivalent to the interest income that would be recognized over time ( $\$ 2,875 \mathrm{X} 16$ periods).

## Problem 3

Preston Country Store invested in $\$ 100,000$ of face amount of 8-year bonds issued by Hampton Food Supply Company on January $1,20 \mathrm{X} 1$. The bonds were purchased at 98 , and bear interest at a stated rate of $6 \%$ per annum, payable semiannually.
a) Prepare the journal entry to record the initial investment on January, 20X1.
b) Prepare the journal entry that Preston would record on each interest date.
c) Prepare the journal entry that Preston would record at maturity of the bonds.
d) How much cash flowed "in" and "out" on this investment, and how does the difference compare to total interest income that was recognized?

## Worksheet

a), b), c)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue |  |  |  |
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| Interest |  |  |  |
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| Maturity |  |  |  |
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d)

## Solution

a), b), c)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue | Investment in Bonds | 98,000 |  |
|  | Cash |  | 98,000 |
|  | To record the purchase of $\$ 100,000,6 \%$, 8 -year bonds at 98 - interest semiannually |  |  |
| Interest | Cash | 3,000 |  |
|  | Investment in Bonds | 125 |  |
|  | Interest Income |  | 3,125 |
|  | To record the receipt of an interest payment <br> ( $\$ 100,000$ par $X .06$ interest $X 6 / 12$ months <br> $=\$ 3,000 ; \$ 2,000$ discount $X 6$ months/96 <br> months $=\$ 125$ amortization) |  |  |
| Maturity | Cash | 100,000 |  |
|  | Investment in Bonds |  | 100,000 |
|  | To record the redemption of bond investment at maturity |  |  |

d)

## Problem 4

Achen Company acquired $30 \%$ of the stock of Rheinland Minerals Company. Achen acquired this investment for purposes of being able to exert significant influence over the strategic plans and operations of Rheinland. Following are events pertaining to this investment:

Sept 1 Purchased 150,000 shares of Rheinland for \$17 per share.

Sept 30 The fair value of Rheinland's stock was $\$ 27$ per share, and the company reported June income of $\$ 330,000$.

Oct 15 The fair value of Rheinland's stock was $\$ 32$ per share, and the company declared and paid a dividend of $\$ 1.25$ per share.

Oct 31 The fair value of Rheinland's stock was $\$ 28$ per share, and the company reported July income of $\$ 270,000$.
a) What method should be used to account for this investment?
b) Prepare journal entries to account for the activity pertaining to the investment in Rheinland Metals.
c) If the investment in Rheinland Metals was insufficient to allow Achen to exert significant influence, how would the accounting approach differ?

## Worksheet

a)
b)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :--- | :--- | :--- | :--- |
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c)

## Solution

a) The investment should be accounted for via the equity method. The equity method is used for investments where the investor has the ability to exert significant influence over the investee. The presumption is that the ability to exert significant influence occurs at investment levels generally at the $20 \%$ and above level (however, this presumption can be overcome and the equity can be used for investments at lower levels, and vice versa). Note that market value adjustments are generally not recorded for investments accounted for under the equity method.
b)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| 1-Sep | Investment in Rheinland | 2,550,000 |  |
|  | Cash |  | 2,550,000 |
|  | To record the purchase of 150,000 shares of Rheinland at \$17 |  |  |
|  |  |  |  |
| 30-Sep | Investment in Rheinland | 99,000 |  |
|  | Investment Income |  | 99,000 |
|  | To record share of Rheinland's reported income ( $30 \%$ X $\$ 330,000$ ) |  |  |
|  |  |  |  |
| 15-Oct | Cash | 187,500 |  |
|  | Investment in Rheinland |  | 187,500 |
|  | To record a $\$ 1.25$ per share cash dividend on the investment |  |  |
|  |  |  |  |
| 31-Oct | Investment in Rheinland | 81,000 |  |
|  | Investment Income |  | 81,000 |
|  | To record share of Rheinland's reported income ( $30 \%$ X $\$ 270,000$ ) |  |  |

c) In the absence of significant influence, the investment would initially be recorded at cost. Subsequent adjustments would be made based on changes in market value of the stock. The manner of recognizing these value changes would depend on whether the intent of the investment was "trading" or "available for sale." In either case, the dividends would be recorded as dividend income.

## Problem 5

Euro Corporation had excess cash on hand on January 1, 20X1, and invested in three separate bond issues on that date. Each bond investment had a maturity date of December 31, 20X5, and a maturity value of $\$ 100,000$. The bond issues each pay interest on June 30 and December 31 of each year, and it is intended that these investments be held to maturity. Additional information about each investment follows:

Austria Company bonds were purchased at par and pay $8 \%$ annual interest.

Spain Company bonds were purchased for $\$ 95,752.44$ and pay $6 \%$ annual interest.

Italy Company bonds were purchased for $\$ 104,247.56$ and pay $10 \%$ annual interest.
a) Prepare journal entries for the Austria Company bonds to record the initial investment, a periodic interest payment, and the maturity.
b) Prepare journal entries for the Spain Company bonds to record the initial investment, a periodic interest payment, and the maturity.
c) Prepare journal entries for the Italy Company bonds to record the initial investment, a periodic interest payment, and the maturity.

## Worksheet

a)

| GENERAL JOURNAL |  |  |  |
| :---: | :---: | :---: | :---: |
| Date | Accounts | Debit | Credit |
| Issue |  |  |  |
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|  |  |  |  |
| Interest |  |  |  |
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| Maturity |  |  |  |
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b)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue |  |  |  |
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|  |  |  |  |
| Interest |  |  |  |
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| Maturity |  |  |  |
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c)

| GENERAL JOURNAL |  |  |  |
| :---: | :---: | :---: | :---: |
| Date | Accounts | Debit | Credit |
| Issue |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Interest |  |  |  |
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|  |  |  |  |
|  |  |  |  |
| Maturity |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Solution

a)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue | Investment in Bonds | 100,000 |  |
|  | Cash |  | 100,000 |
|  | To record the purchase of $\$ 100,000,8 \%$, 5-year bonds at par -- interest semiannually |  |  |
| Interest | Cash | 4,000 |  |
|  | Interest Income |  | 4,000 |
|  | To record the receipt of an interest payment $(\$ 100,000$ par $X .08$ interest $X 6 / 12$ months $=$ $\$ 4,000)$ |  |  |
| Maturity | Cash | 100,000 |  |
|  | Investment in Bonds |  | 100,000 |
|  | To record the redemption of bond investment at maturity |  |  |

b)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue | Investment in Bonds | 95,752.44 |  |
|  | Cash |  | 95,752.44 |
|  | To record the purchase of $\$ 100,000,6 \%$, 5-year bonds at a discount -- interest semiannually |  |  |
| Interest | Cash | 3,000.00 |  |
|  | Investment in Bonds | 424.76 |  |
|  | Interest Income |  | 3,424.76 |
|  | To record the receipt of an interest payment ( $\$ 100,000$ par X 06 interest X $6 / 12$ months $=\$ 3,000 ; \$ 4,247.56$ discount $/ 12$ periods $=$ $\$ 424.76$ amortization) |  |  |
| Maturity | Cash | 100,000 |  |
|  | Investment in Bonds |  | 100,000 |
|  | To record the redemption of bond investment at maturity |  |  |

c)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| Issue | Investment in Bonds | 104,247.56 |  |
|  | Cash |  | 104,247.56 |
|  | To record the purchase of $\$ 100,000,6 \%$, 6-year bonds at a premium -- interest semiannually |  |  |
| Interest | Cash | 5,000.00 |  |
|  | Investment in Bonds |  | 424.76 |
|  | Interest Income |  | 4,575.24 |
|  | To record the receipt of an interest payment ( $\$ 100,000$ par $X .10$ interest $X 6 / 12$ months $=\$ 5,000 ; \$ 4,247.56$ premium $/ 10$ periods $=$ $\$ 424.76$ amortization) |  |  |
| Maturity | Cash | 100,000 |  |
|  | Investment in Bonds |  | 100,000 |
|  | To record the redemption of bond investment at maturity |  |  |

## Problem 6

Summer Fun Corporation acquired $30 \%$ of the stock of Island Adventures. Summer Fun's investment is a long-term strategic investment. Summer Fun anticipates that its investment will permit it to elect certain board members and otherwise exercise influence over the plans and policies implemented by Island Adventures.

Summer Fun paid $\$ 5,000,000$ for its $30 \%$ interest. The acquisition occurred on January 1, 20X3. On that date, Island Adventures had total stockholders' equity of $\$ 25,000,000$. During 20X3, Island Adventures earned $\$ 6,000,000$ and paid $\$ 1,000,000$ in dividends. Both companies have December 31 year ends.
a) Prepare Summer Fun's entries to account for the activity pertaining to the investment in Island Adventures.
b) Calculate the change in Island Adventure's total equity during the year, and compare this to the change in Summer Fun's Investment in Island Adventure's account. Are they correlated, and does this help explain the term "equity" method of accounting.

## Worksheet

a)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
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|  |  |  |  |

b)

## Solution

a)

GENERAL JOURNAL

| Date | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| 1-Jan | Investment in Island Adventures | 5,000,000 |  |
|  | Cash |  | 5,000,000 |
|  | To record the purchase of $30 \%$ of the shares of Delta |  |  |
| 31-Dec | Investment in Island Adventures | 1,800,000 |  |
|  | Investment Income |  | 1,800,000 |
|  | To record share of Island Adventure's income (30\% X \$ $6,000,000$ ) |  |  |
| 31-Dec | Cash | 300,000 |  |
|  | Investment |  | 300,000 |
|  | To record share of Island Adventure's dividends $(30 \%$ X $\$ 1,000,000)$ |  |  |

b) Island Adventure's equity increased from $\$ 25,000,000$ to $\$ 30,000,000$
$(\$ 25,000,000+\$ 6,000,000-\$ 1,000,000)$. This $\$ 5,000,000$ correlates with the $\$ 4,000,000$ increase $(30 \%)$ in the Investment in Island Adventure account on Coastal's books
( $\$ 5,000,000$ beginning balance $+\$ 1,800,000$ debit $-\$ 300,000$ credit $=\$ 6,500,000$ ending balance). This correlation between the equity of the investee and Investment account of the investor is expected, and help explains why the term "equity" method is used to describe the accounting approach.

## Problem 7

Warrick Corporation purchased all of the stock of London Corporation on July 1. Warrick paid $\$ 6,000,000$ for this investment. London's buildings had a fair value of $\$ 3,100,000$. All other assets and liabilities of London had fair values that were equivalent to their recorded amounts. Any excess purchase differential is attributable to goodwill. The separate balance sheets of Warrick and London follow. Prepare the consolidated balance sheet that would be reported to Warrick's shareholders.

| WARRICK CORPORATION <br> Balance Sheet July 1, 20X3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |
| Current assets |  |  |  |  |
| Cash | \$ | 1,130,000 |  |  |
| Accounts receivable |  | 467,578 |  |  |
| Inventories |  | 511,818 | \$ | 2,109,396 |
| Long-term Investments |  |  |  |  |
| Investment in London |  |  |  | 6,000,000 |
| Property, plant \& equipment |  |  |  |  |
| Land | \$ | 757,580 |  |  |
| Building (net of accumulated depreciation) |  | 1,723,838 |  |  |
| Equipment (net of accumulated depreciation) |  | 952,272 |  | 3,433,690 |
| Intangible assets |  |  |  |  |
| Patent |  |  |  | 1,080,000 |
| Total assets |  |  | \$ | 12,623,086 |
| Liabilities |  |  |  |  |
| Current liabilities |  |  |  |  |
| Accounts payable | \$ | 475,550 |  |  |
| Salaries payable |  | 250,000 | \$ | 726,350 |
| Long-term liabilities |  |  |  |  |
| Loan payable |  |  |  | 5,000,000 |
| Total liabilities |  |  | \$ | 5,726,350 |
| Stockholders' equity |  |  |  |  |
| Capital stock | \$ | 4,600,000 |  |  |
| Retained earnings |  | 2,296,736 |  |  |
| Total stockholders' equity |  |  |  | 6,896,736 |
| Total Liabilities and equity |  |  | \$ | 12,623,086 |

## LONDON CORPORATION

## Balance Sheet

July 1, 20X3

| Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Current assets |  |  |  |  |
| Cash | \$ | 69,090 |  |  |
| Accounts receivable |  | 361,600 |  |  |
| Inventories |  | 687,374 | \$ | 1,118,067 |
| Property, plant \& equipment |  |  |  |  |
| Land | \$ | 275,552 |  |  |
| Building (net of accumulated depreciation) |  | 1,376,198 |  |  |
| Equipment (net of accumulated depreciation) |  | 1,315,774 |  | 2,967,524 |
| Total assets |  |  | \$ | 4,085,588 |
| Liabilities |  |  |  |  |
| Current liabilities |  |  |  |  |
| Accounts payable | \$ | 237,996 |  |  |
| Salaries payable |  | 46,882 | \$ | 284,878 |
| Long-term liabilities |  |  |  |  |
| Loan payable |  |  |  | 1,264,358 |
| Total liabilities |  |  | \$ | 1,549,236 |
| Stockholders' equity |  |  |  |  |
| Capital stock | \$ | 1,600,000 |  |  |
| Retained earnings |  | 936,352 |  |  |
| Total stockholders' equity |  |  |  | 2,536,352 |
| Total Liabilities and equity |  |  | \$ | 4,085,588 |

## Worksheet



## Solution

The following are summed from the separate statements except:

Building is the parent's building $+\$ 3,100,000$ (fair value of sub's building).

Goodwill is the excess of he $\$ 6,000,000$ purchase price over the equity of the sub $(\$ 2,536,352)$ and additional amount assigned to the building ( $\$ 3,100,000$ fair value - $\$ 1,376,198$ book value of sub's building).

Equity is the parent's equity only.

| WARRICK CORPORATION AND CONSOLIDATED SUBSIDIARY <br> Balance Sheet <br> July 1, 20X3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |
| Current assets |  |  |  |  |
| Cash | \$ | 1,199,090 |  |  |
| Accounts receivable |  | 829,178 |  |  |
| Inventories |  | 1,199,192 | \$ | 3,227,460 |
| Property, plant \& equipment |  |  |  |  |
| Land | \$ | 1,033,132 |  |  |
| Building (net of accumulated depreciation) |  | 4,823,838 |  |  |
| Equipment (net of accumulated depreciation) |  | 2,268,046 |  | 8,125,016 |
| Intangible assets |  |  |  |  |
| Goodwill | \$ | 1,739,846 |  |  |
| Patent |  | 1,080,000 |  | 2,819,846 |
| Total assets |  |  | \$ | 14,172,322 |
| Liabilities |  |  |  |  |
| Current liabilities |  |  |  |  |
| Accounts payable | \$ | 713,546 |  |  |
| Salaries payable |  | 297,682 | \$ | 1,011,228 |
| Long-term liabilities |  |  |  |  |
| Loan payable |  |  |  | 6,264,358 |
| Total liabilities |  |  | \$ | 7,275,586 |
| Stockholders' equity |  |  |  |  |
| Capital stock | \$ | 4,600,000 |  |  |
| Retained earnings |  | 2,296,736 |  |  |
| Total stockholders' equity |  |  |  | 6,896,736 |
| Total Liabilities and equity |  |  | \$ | 14,172,322 |

