less than that if it gains significant representation on the board of directors, participates actively in the investee's operating decisions, provides investee with significant technology, and so forth.

There are a number of important points relating to the use of the equity method:

1. The investor can only recognize equity income subsequent to the date it purchases the Equity Investment.
2. The investor can only recognize equity income equal to the proportion of the investee that it owns.
3. The investor must defer unrealized gains on intercompany sales.
4. The investor must discontinue the use of the equity method if the investee becomes insolvent (i.e., reports negative stockholders' equity) or if the investment is written down to a zero balance.
5. Reporting Equity Income does not imply that cash dividends have been received.
6. Reporting the Equity Investment potentially omits a significant amount of assets and liabilities from the investor's balance sheet and a significant amount of sales and expenses from the investor's income statement (this objection is overcome if the investee is consolidated with the investor).
7. The investor may have practical liability for the investee company's liabilities even if no actual liability exists.

## COMPREHENSIVE REVIEW

Assume in 2019 an investor company purchases a $15 \%$ investment in an investee company for $\$ 75,000$ and accounts for that investment using the fair value method. On December 31, 2021 (the most recent financial statement date), the reported fair value of the $15 \%$ investment was $\$ 135,000$. On February 15, 2022, the investor acquires an additional $20 \%$ of the outstanding common stock of the investee for $\$ 375,000$. After acquiring the additional $20 \%$ of the investee, the investor has significant influence over the investee.

On February 15, 2022, the book value of the net assets of the investee is $\$ 750,000$. The investor is willing to pay $\$ 375,000$ for $20 \%$ of the stock of the investee (implying a fair value of the investee of $\$ 375,000 / 20 \%=\$ 1,875,000)$ because the investee has a patent that is worth $\$ 1,125,000$. That patent will expire in 10 years.

Subsequent to the purchase, the investee reports net income of $\$ 300,000$ and pays $\$ 135,000$ in dividends through the end of the year. In addition, during the year, the investor sells inventories to the investee that cost $\$ 75,000$ for a sale price of $\$ 120,000$. At the end of the year, $30 \%$ of the parts inventories remain on the investee's balance sheet.

## Required

Record each of the following adjustments related to the purchase of the additional $20 \%$ interest and the subsequent $35 \%$ investment holding.
a. Provide the journal entries necessary for the acquisition of significant influence on February 15, 2022.
b. Provide the journal entry to recognize the Equity Income by the investor.
c. Provide the journal entry to record the receipt of the dividend.
d. Provide the journal entry to record the amortization of the Patent asset.
$e$. Provide the journal entry to record the deferral of gross profit on the intercompany inventory sale.

## The solution to this review problem can be found on pages 43-44.

## QUESTIONS

1. Equity Investments are sometimes referred to as "one-line consolidations." That means that the balance sheets of the investor and investee companies are combined and that the Stockholders' Equity of the investor company is equal to that which would be obtained had the investor's and the investee's balance sheets been combined. It also means that the investor's income statement reports the same net income as would have been reported by a combination of the income statements of the investor and investee companies.
reported net income equal to $\$ 65,000$ and dividends equal to $\$ 19,500$. On December 31, 2022, the fair value of the investee's stock is $\$ 16$ per share.

LO2, 3,5 19. Noncontrolling investment accounting (price different from book value)
Assume the investor cannot exert significant influence over the investee. Determine the balance in the "Investment in Investee" account at December 31, 2022.
a. $\$ 320,000$
b. $\$ 296,000$
c. $\$ 251,500$
d. $\$ 240,000$
20. Noncontrolling investment accounting (price different from book value)

Assume the investor can exert significant influence over the investee. Determine the balance in the "Investment in Investee" account at December 31, 2022.
a. $\$ 320,000$
b. $\$ 296,000$
c. $\$ 251,500$
d. $\$ 240,000$

Use the following facts for Multiple Choice problems 21 through 24 (each question is independent of the other):
On January 1, 2022, an investor purchases for $\$ 400,000$ a $15 \%$ ownership in an investee. The investee's common stock has a readily determinable fair value. On January 1, 2022, the book value of the investee's assets and liabilities equals $\$ 900,000$ and $\$ 250,000$, respectively. On that date, the appraised fair values of

LO2, 4, 5 27. Equity method of accounting with intercompany inventory transactions What amount of investment income from the investee did the investor recognize during the year ended December 31, 2022?
a. $\$ 21,000$
b. $\$ 19,950$
c. $\$ 24,150$
d. $\$ 22,050$

LO2, 4, 5
28. Equity method of accounting with intercompany inventory transactions

What is the balance in the Equity Investment account on December 31, 2022?
a. $\$ 735,000$
b. $\$ 798,000$
c. $\$ 764,750$
d. $\$ 760,550$

## Use the following facts for Multiple Choice problems 29 and 30:

An investor company owns $20 \%$ of the common stock of an investee company. The investor has significant influence over the investee, and acquired its equity interest in the investee on January 1, 2021 for $\$ 600,000$. On the date of acquisition, the investee's stockholders' equity was $\$ 2,500,000$, and the fair values of the investee's individual net assets were equal to their reported book values. During the year ended December 31, 2021, the investee reported net income of $\$ 60,000$ and dividends of $\$ 15,000$. During the year ended December 31,2022 , the investee reported net income of $\$ 90,000$ and dividends of $\$ 25,000$. The investor routinely sells inventory to the investee at a $40 \%$ profit margin. At December 31, 2021 and 2022, the investee held inventories purchased from the investor for $\$ 40,000$ and $\$ 30,000$, respectively. (All of these inventories on hand at the end of the year are sold by the investee to unaffiliated companies in the next period.)
LO2, 4, 5 29. Equity method of accounting with intercompany inventory transactions
What amount of investment income from the investee did the investor recognize during the year ended December 31, 2022?
a. $\$ 18,000$
b. $\$ 21,200$
c. $\$ 18,800$
d. $\$ 17,200$

## LO2, 4, 5

30. Equity method of accounting with intercompany inventory transactions

What is the balance in the Equity Investment account on December 31, 2022?
a. \$ 619,600
c. $\$ 665,000$
b. $\$ 600,000$
d. $\$ 622,000$

LO7 31. Change from significant influence to passive influence, readily determinable market value On July 1, 2022, an investor company owns $30 \%$ of the common stock of an investee and can exercise significant influence over the investee. On July 1, 2022, immediately before the sale of $10 \%$ of the investee to an unaffiliated party, the balance of the Equity Investment account was $\$ 48,000$. The investor company sold the $10 \%$ interest in the investee for $\$ 30,000$. The investor company determined that after the sale of $10 \%$ it could no longer exert significant influence and that the remaining $20 \%$ investment has a readily determinable fair value. Immediately after the sale of the $10 \%$ interest, what is the carrying amount (i.e., balance) of the Equity Investment (after all required adjustments) and what method of accounting must the investor use for the Equity Investment?

|  | Balance | Method |
| :---: | :--- | :--- |
| a. | $\$ 32,000$ | Equity |
| b. | $\$ 32,000$ | Fair value |
| c. | $\$ 60,000$ | Cost-based |
| d. | $\$ 60,000$ | Fair value |

LO7 32. Change from significant influence to passive influence, no readily determinable fair value, and orderly transaction
On March 15, 2022, an investor company owns $35 \%$ of the outstanding common stock of an investee and can exercise significant influence over the investee. On March 15, 2022, immediately preceding the sale of $20 \%$ of the investee's outstanding common stock to an unaffiliated party, the balance of the Equity Investment account was $\$ 35,000$. The investor company sold the $20 \%$ interest in the investee for $\$ 30,000$. The investor company determined that after the sale of its $20 \%$ interest it could no longer exert significant influence over the investee, that the remaining $15 \%$ investment does not have a readily determinable fair value and that the transaction resulting in the loss of significant influence constitutes an orderly exchange. Immediately after the sale of the $20 \%$ interest, what is the carrying amount (i.e., balance) of the Equity Investment (i.e., after all required adjustments) and what method of accounting will the investor use for the Equity Investment if the investor does not wish to apply the Level 2 and Level 3 measurement techniques described in FASB ASC 820: Fair Value Measurement?
b. 1 . Equity investment ..... 150
Equity income ..... 150
to record equity income of \$150 representing 100\% of the investee's net income) ..... 2.
Cash. ..... 45
Equity investment ..... 45
(to record the receipt of $\$ 45$ dividend from the investee)
c. The Equity investment account on the investor's balance sheet has a current balance of $\$ 855(750+$$\$ 150-\$ 45$ ), the same as the investee's stockholders' equity. This is so because the investor owns $100 \%$of the investee's equity.
Solution 1.3 (page 15)
a. Equity investment ..... 150
Equity income
(to record equity income of \$150 representing 100\% of the investee's net income)150
b. Cash ..... 45Equity investment.45(to record the receipt of $\$ 45$ dividend from the investee)
c. Equity income. ..... 15Equity investment.(to record the amortization of the patent asset)
Solution 1.4 (page 16)
Equity income. ..... 35
Equity investment. ..... 35
(to record the deferral of $70 \%$ of the $\$ 50$ of gross profit on inventory sale in the period of sale)
Solution 1.5 (page 19)
Equity income. ..... 7Equity investment.
(to record the deferral of $70 \%$ of the gross profit on inventory sale in the period of sale when theinvestor owns $1 / 4$ of the investee- $\$ 40 \times 70 \% \times 25 \%=7$
Solution 1.6 (page 22)
a. Equity investment ..... 12,160
Cash ..... 12,160
(to record the purchase of an additional 20\% interest in the common stock of the investee to bring the total holdings to $25 \%$ )
Equity investment ..... 100
Unrealized holding gain (in net income) ..... 100
(to increase the existing 5\% holding of investee stock to fair value pursuant to transaction to gain significant influence in investee-the fair value of the existing 5\% investment can be inferred from the price paid for the $20 \%-\$ 12,160 / 20 \%=\$ 60,800 \times 5 \%=\$ 3,040$ )
b. Equity investment ..... 12,160
Cash ..... 12,160
(to record the purchase of an additional 10\% interest in the common stock of the investee to bring the total holdings to 25\%)
Equity investment ..... 640
Unrealized holding gain (in net income) ..... 640 transaction that represents an "observable price change in an orderly transaction")
c. Equity investment ..... 12,160
Cash ..... 12,160

    bring the total holdings to \(25 \%\) )
    
## Solution 2.4 (page 79)

a. Fair value of identifiable net assets $=\$ 16,000$
$\$ 20,000$ Total value of the subsidiary

- 16,000 Fair value of the identifiable net assets
\$4,000 Goodwill
b. Fair value of identifiable net assets $=\$ 22,000$
\$20,000 Total value of subsidiary
- 22,000 Fair value of the identifiable net assets
$\$(2,000)$ Gain from bargain purchase

The negative amount for the residual represents a "gain from bargain purchase." The parent will continue to report the net assets of the subsidiary at their fair value of $\$ 22,000$, and will recognize the bargain purchase as a gain in the acquisition year.

## Solution 2.5 (page 80)

Under FASB ASC 805-10-25-23, acquisition-related costs are costs the investor incurs to effect a business combination. Those costs include finder's fees; advisory, legal, accounting, valuation, and other professional or consulting fees; and general administrative costs, including the costs of maintaining an internal acquisitions department. The parent should account for acquisition-related costs as expenses in the periods in which the costs are incurred and the services are received (the standard also provides, however, that costs to register the stock are netted against contributed capital).

## Solution 2.6 (page 88)

"Interpretive Response: In accordance with Statement 141, the acquiring company should allocate the cost of an acquired company to the assets acquired and liabilities assumed based on their fair values at the date of acquisition. With respect to contingencies for which a fair value is not determinable at the date of acquisition, [accounting standards prescribe that the contingency should not be recorded]. If the registrant is awaiting additional information that it has arranged to obtain for the measurement of a contingency . . . the staff believes that the registrant should disclose that the purchase price allocation is preliminary. In that circumstance, the [company] should describe the nature of the contingency and furnish other available information that will enable a reader to understand its potential effects on the final allocation and on post-acquisition operating results. Management's Discussion and Analysis should include appropriate disclosure regarding any unrecognized preacquisition contingency and its reasonably likely effects on operating results, liquidity, and financial condition.
"The staff believes that the allocation period should not extend beyond the minimum reasonable period necessary to gather the information that the [company] has arranged to obtain for purposes of the estimate. Since an allocation period usually should not exceed one year, registrants believing that they will require a longer period are encouraged to discuss their circumstances with the staff. If it is unlikely that the liability can be estimated on the basis of information known to be obtainable at the time of the initial purchase price allocation, the allocation period should not be extended with respect to that liability. An adjustment to the contingent liability after the expiration of the allocation period would be recognized as an element of net income."
(Source: www.sec.gov, Codification of Staff Accounting Bulletins, Topic 2: Business Combinations)

## TOPIC REVIEW 3.2

## Consolidation Subsequent to Date of Acquisition-Equity Method

On January 1, 2015, a parent purchased all of the outstanding common stock of a subsidiary. On the acquisition date, the fair values of the subsidiary's identifiable net assets equaled the recorded book values of those net assets, except for an unrecorded patent which had a fair value of $\$ 102,000$. The AAP related to the patent is being amortized at a rate of $\$ 6,000$ per year over its 17 year economic useful life, and has an unamortized balance of $\$ 54,000$ on December 31, 2022. The parent company applies the equity method of pre-consolidation Equity Investment bookkeeping. Below are the financial statements of the parent and subsidiary for the year ended December 31, 2022.

|  | Parent | Subsidiary |
| :---: | :---: | :---: |
| Income statement: |  |  |
| Sales. | \$6,000,000 | \$ 900,000 |
| Cost of goods sold | (4,200,000) | $(540,000)$ |
| Gross profit. | 1,800,000 | 360,000 |
| Equity income. | 120,000 |  |
| Operating expenses | (1,140,000) | $(234,000)$ |
| Net income | \$ 780,000 | \$ 126,000 |
| Statement of retained earnings: |  |  |
| BOY retained earnings | \$1,800,000 | \$ 330,000 |
| Net income | 780,000 | 126,000 |
| Dividends | $(360,000)$ | $(18,000)$ |
| Ending retained earnings | \$2,220,000 | \$ 438,000 |
| Balance Sheet: |  |  |
| Assets |  |  |
| Cash. | \$ 420,000 | \$ 120,000 |
| Accounts receivable | 480,000 | 180,000 |
| Inventory. | 1,200,000 | 246,000 |
| Equity investment | 600,000 |  |
| Property, plant \& equipment, net | 3,600,000 | 480,000 |
| Patent. | 0 | 0 |
|  | \$6,300,000 | \$1,026,000 |
| Liabilities and stockholders' equity |  |  |
| Current liabilities. | \$1,200,000 | \$ 180,000 |
| Long-term liabilities | 2,100,000 | 300,000 |
| Common stock | 300,000 | 48,000 |
| APIC. | 480,000 | 60,000 |
| Retained earnings | 2,220,000 | 438,000 |
|  | \$6,300,000 | \$1,026,000 |

## Required

Prepare the consolidation spreadsheet.
The solution to this review problem can be found on page 190.

## POST-ACQUISITION CONSOLIDATION WHEN THE PARENT USES THE COST METHOD OF INVESTMENT BOOKKEEPING

So far, we focused on consolidation when the parent company uses the equity method of pre-consolidation bookkeeping because it is the most intuitive condition under which to consolidate. To review, when the parent company uses the equity method, then (1) consolidated net income will equal the parent company's pre-consolidation net income and (2) consolidated owners' equity will equal the parent company's pre-consolidation owners' equity. This means that, when the parent company uses

Describe the consolidation process subsequent to the date of acquisition when the parent uses the cost method to account for its Equity Investment.

On the company's pre-consolidation books, the parent will recognize the deferred intercompany profit through the following equity method adjustment:

```
Equity investment20
            Income (loss) from subsidiary
        20
    (to recognize the deferredintercompany profit when the land is sold to an
    unaffiliated entity)
```

As noted in the parent's pre-consolidation income statement balances in Exhibit 4.20, this brings the parent's total pre-consolidation income for 2022 to $\$ 70$ (i.e., the $\$ 50$ gain recognized on the sale to the unaffiliated party plus the $\$ 20$ recognition of the deferred gain). Also of note: the beginning balance of the subsidiary's pre-consolidation retained earnings still includes the $\$ 20$ deferred gain. Thus the following consolidating entries are necessary to reflect correct consolidated balances:

| [C] | Income (loss) from subsidiary Equity investment | 20 | 20 | Eliminates changes in the Equity Investment account during the year |
| :---: | :---: | :---: | :---: | :---: |
| [E] | Retained earnings-BOY . . . . . Equity investment-BOY | 20 | 20 | Eliminates beginning stockholders' equity of the subsidiary against the investment account |
| [ ${ }_{\text {gain }}$ ] | Equity investment . . . . . . . Gain on sale of land | 20 | 20 | Recognizes deferred gain in year of sale to unaffiliated party |

The actual transactions, the parent's equity method accounting, and the consolidating entries lead to the consolidated balances shown in Exhibit 4.20.

EXHIBIT 4.20 Excerpts of Land-Transaction-Affected Accounts in Consolidation Spreadsheet in the Interim Period in Which the Upstream Land Holding Is Sold to an Unaffiliated Party (i.e., 2022)—Equity Method

|  | Parent | Subsidiary | Consolidation Entries |  |  |  | Consolidated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Debits |  |  |  |  |
| Income statement (excerpt): |  |  |  |  |  |  |  |
| Gain on sale of land | \$50 | \$ 0 |  |  | [ $\mathrm{Igain}^{\text {] }}$ ] | 20 | \$70 |
| Income (loss) from subsidiary | 20 |  | [C] | 20 |  |  | 0 |
| Net effect on total profits. | \$70 | \$ 0 |  | 0 |  | 20 | \$70 |
| Retained earnings statement (excerpt): <br> Beginning retained earnings. | \$ 0 | \$20 | [E] | 20 |  |  | \$ 0 |
| Balance sheet (excerpt): |  |  |  |  |  |  |  |
| Land. | \$ 0 | \$ 0 |  |  |  |  | \$ 0 |
|  |  |  |  |  | [C] | 20 |  |
| Equity investment . . . . . . . . . . . . . . . . . . | 20 | 0 | [ $I_{\text {gain }}$ ] | 20 | [E] | 20 | 0 |
| Ending retained earnings | \$70 | \$20 | (RE \& NI) | 40 | (NI) | 20 | \$70 |

It's important to note that the consolidated financial statements in the upstream case (i.e., Exhibit 4.20) are identical to the consolidated financial statements in the downstream case (i.e., Exhibit 4.17). This is because, when subsidiaries are wholly owned, the land transactions from the perspective of the combined consolidated entity are the same. However, because the direction of the sale (i.e., downstream versus upstream) will lead to different implications for the pre-consolidation books of the parent and the subsidiary, the equity method and consolidation entries will necessarily differ.
held in its inventory $\$ 96,000$ of merchandise purchased from the parent. The remaining inventory was sold to unaffiliated third-party customers during the year ended December 31, 2022.
16. Intercompany sales, profits in ending inventory

What amount of revenues will be reported in the consolidated financial statements for the year ended December 31, 2022 ?
a. $\$ 4,000,000$
b. $\$ 2,400,000$
c. $\$ 4,024,000$
d. $\$ 3,680,000$
17. Intercompany sales, profits in ending inventory

What amount of gross profit will be reported in the consolidated financial statements for the year ended December 31, 2022?
a. $\$ 1,160,000$
b. $\$ 1,136,000$
c. $\$ 600,000$
d. $\$ 1,150,000$

Use the following facts for Multiple Choice problems 18-20. Each of the problems is independent of the other.
Assume a parent company owns a $100 \%$ controlling interest in its long-held subsidiary. The following excerpts are from the parent's and subsidiary's "stand alone" pre-consolidation income statements for the year ending December 31, 2022, prior to any investment bookkeeping or intercompany adjustments:

|  | Parent | Subsidiary |
| :---: | :---: | :---: |
| Revenues | \$5,200,000 | \$3,250,000 |
| Cost of goods sold | (3,640,000) | (1,950,000) |
| Gross profit. | 1,560,000 | 1,300,000 |
| Selling general \& administrative expenses | $(1,014,000)$ | $(787,800)$ |
| Net income | \$ 546,000 | \$ 512,200 |

On January 1, 2022, neither company held any inventories purchased from the other affiliate. All of the sales made by either company have the same gross margin regardless of whether they are made to affiliates or non-affiliates. The subsidiary declared and paid \$260,000 of dividends during 2022.
18. Pre-consolidation bookkeeping, downstream intercompany sales, profits in ending inventoryEquity method
Assume during the year ended December 31, 2022, a parent sold to its subsidiary $\$ 650,000$ of merchandise. At December 31, 2022, the subsidiary still held in its inventory $25 \%$ of the goods purchased from the parent during 2022. What is the amount of "income from subsidiary" recognized by the parent company if it applies the equity method of pre-consolidation investment bookkeeping?
a. $\$ 560,950$
b. $\$ 546,000$
c. $\$ 512,200$
d. $\$ 463,450$

LO1 19. Pre-consolidation bookkeeping, upstream intercompany sales, profits in ending inventoryEquity method
Assume during the year ended December 31, 2022, a subsidiary sold to its parent $\$ 520,000$ of merchandise. At December 31, 2022, the parent still held in its inventory $25 \%$ of the goods purchased from the subsidiary during 2022. What is the amount of "income from subsidiary" recognized by the parent company if it applies the equity method of pre-consolidation investment bookkeeping?
a. $\$ 463,450$
b. $\$ 460,200$
c. $\$ 382,200$
d. $\$ 304,200$
20. Pre-consolidation bookkeeping, upstream intercompany sales, profits in ending inventory-Cost method
Assume during the year ended December 31, 2022, a subsidiary sold to its parent $\$ 520,000$ of merchandise. At December 31, 2022, the parent still held in its inventory $25 \%$ of the goods purchased from the subsidiary during 2022. What is the amount of "income from subsidiary" recognized by the parent company if it applies the cost method of pre-consolidation investment bookkeeping?
a. $\$ 463,450$
b. $\$ 460,200$
c. $\$ 260,000$
d. $\$ 208,000$
21. Continuous downstream intercompany inventory transactions

Assume a parent company owns a $100 \%$ controlling interest in its long-held subsidiary. During the year ended December 31, 2022, the parent and subsidiary had "stand alone" (i.e., before any equity method

## PROBLEMS

39. Consolidation spreadsheet for continuous sale of inventory-Equity method

Assume a parent company acquired a subsidiary on January 1, 2019. The purchase price was $\$ 450,000$ in excess of the subsidiary's book value of Stockholders' Equity on the acquisition date, and that excess was assigned to the following AAP assets:

| AAP Asset | Original <br> Amount | Original Useful Life |
| :---: | :---: | :---: |
| Property, plant, and equipment (PPE), net. | \$ 90,000 | 20 years |
| Customer list. . . . . . . . . . . . . . . . . | 157,500 | 10 years |
| Royalty agreement | 112,500 | 10 years |
| Goodwill | 90,000 | Indefinite |
|  | \$450,000 |  |

The AAP assets with a definite useful life have been amortized as part of the parent's equity method accounting. The Goodwill asset has been tested annually for impairment and has not been found to be impaired.

Assume the parent company sells inventory to its wholly owned subsidiary. The subsidiary, ultimately, sells the inventory to customers outside of the consolidated group. You have compiled the following data for the years ending 2021 and 2022:

|  | Inventory Sales | Gross Profit Remaining in Unsold Inventory | Receivable (Payable) |
| :---: | :---: | :---: | :---: |
| 2022 | \$61,200 | \$18,000 | \$24,300 |
| 2021 | \$38,700 | \$10,800 | \$11,700 |

The inventory not remaining at the end of the year has been sold to unaffiliated entities outside of the consolidated group. The parent uses the equity method to account for its Equity Investment.

The financial statements of the parent and its subsidiary for the year ended December 31, 2022, follow:

|  | Parent | Subsidiary |  | Parent | Subsidiary |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Income statement: |  |  | Balance sheet: |  |  |
| Sales. | \$3,870,000 | \$704,700 | Assets |  |  |
| Cost of goods sold | $(2,700,000)$ | $(423,000)$ | Cash | \$ 567,000 | \$225,000 |
| Gross profit. | 1,170,000 | 281,700 | Accounts receivable | 504,000 | 171,000 |
| Income (loss) from subsidiary | $60,300$ | $0$ | Inventory. | 765,000 | 207,000 |
| Operating expenses | $(747,000)$ | $(182,700)$ | PPE, net ... | 3,600,000 | 387,000 |
| Net income . . . . . . . |  | (182,700) | Equity investment | 864,000 | 0 |
| Net income | \$ 483,300 | \$ 99,000 |  | \$6,300,000 | \$990,000 |
| Statement of retained earnings: |  |  |  |  |  |
| Beginning retained earnings. . . . | \$1,964,700 | \$364,500 | Liabilities and stockholders equity |  |  |
| Net income | 483,300 | 99,000 | Accounts payable . . . . | \$ 270,000 | \$ 82,800 |
| Dividends | $(108,000)$ | $(13,500)$ | Other current liabilities | 360,000 | 114,300 |
| Ending retained earnings | \$2,340,000 | \$450,000 | Common stock . . | 2,250,000 | 45,000 |
|  |  |  | APIC | 468,000 | 63,000 |
|  |  |  | Retained earnings | 2,340,000 | 450,000 |
|  |  |  |  | \$6,300,000 | \$990,000 |

## 53. Prepare consolidation spreadsheet for intercompany sale of equipment-Equity method

Assume a parent company acquired its subsidiary on January 1, 2016, at a purchase price that was $\$ 200,000$ in excess of the book value of the subsidiary's Stockholders' Equity on the acquisition date. The excess was assigned entirely to an unrecorded License Agreement owned by the subsidiary. The License Agreement asset is being depreciated over its 10-year useful life on a straight-line basis with no salvage value.

In January 2019, the parent sold Equipment to its wholly owned subsidiary for a cash price of $\$ 50,400$. The parent had acquired the equipment at a cost of $\$ 60,000$ and depreciated the equipment over its 10 -year useful life using the straight-line method (no salvage value). The parent had depreciated the equipment for 3 years at the time of sale. The subsidiary retained the depreciation policy of the parent and depreciated the equipment over its remaining 7 -year useful life.

Following are financial statements of the parent and its subsidiary as of December 31, 2022. The parent uses the equity method to account for its Equity Investment.

|  | Parent | Subsidiary |  | Parent | Subsidiary |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Income statement: |  |  | Balance sheet: |  |  |
| Sales. | \$4,000,000 | \$2,400,000 | Assets |  |  |
| Cost of goods sold | (2,800,000) | (1,440,000) | Cash. | \$ 272,000 | \$ 280,000 |
| Gross profit. | 1,200,000 | 960,000 | Accounts receivable | 595,200 | 368,000 |
| Income (loss) from subsidiary | 240,000 | 0 | PPE, net | 3,772,800 | 1,600,000 |
| Operating expenses | $(880,000)$ | $(701,200)$ | Equity investment . | 1,440,000 | 0 |
| Net income | \$ 560,000 | \$ 258,800 |  | \$6,800,000 | \$2,800,000 |
| Statement of retained earnings: |  |  | Liabilities and stockholders' equity |  |  |
| Beginning retained earnings. | \$1,672,000 | \$ 507,600 | Accounts payable . . . . . . . . . . . | \$ 528,000 | \$ 179,200 |
| Net income | 560,000 | 258,800 | Other current liabilities | 584,000 | 472,000 |
| Dividends | $(192,000)$ | $(48,000)$ | Long-term liabilities | 2,000,000 | 765,200 |
| Ending retained earnings | \$2,040,000 | \$ 718,400 | Common stock | 328,000 | 296,000 |
|  |  |  | APIC. | 1,320,000 | 369,200 |
|  |  |  | Retained earnings . . . . . . . . . | 2,040,000 | 718,400 |
|  |  |  |  | \$6,800,000 | \$2,800,000 |

a. Prepare the journal entry that the parent made to record the sale of the equipment to the subsidiary, the journal entry that the subsidiary made to record the purchase, and the [I] entries for the year of sale.
b. Compute the remaining portion of the deferred gain at January 1, 2022.
c. Show the computation to yield the $\$ 300,000$ of Income (loss) from subsidiary reported by the parent for the year ended December 31, 2022.
d. Compute the Equity Investment balance of $\$ 1,440,000$ at December 31, 2022.
$e$. Prepare the consolidation entries for the year ended December 31, 2022.
f. Prepare the consolidation spreadsheet for the year ended December 31, 2022.
57. Comprehensive consolidation subsequent to date of acquisition, AAP computation, goodwill, upstream and downstream intercompany inventory profits, downstream intercompany depreciable asset gain-Equity method
A parent company acquired 100 percent of the stock of a subsidiary company on January 1, 2018, for $\$ 270,000$. On this date, the balances of the subsidiary's stockholders' equity accounts were Common Stock, $\$ 163,800$, and Retained Earnings, $\$ 17,640$.

On January 1, 2018, the subsidiary's recorded book values were equal to fair values for all items except four: (1) accounts receivable had a book value of $\$ 50,400$ and a fair value of $\$ 45,360$, (2) buildings and equipment, net had a book value of $\$ 44,100$ and a fair value of $\$ 66,780$, (3) the Customer List intangible asset had a book value of $\$ 12,600$ and a fair value of $\$ 65,520$, and (4) notes payable had a book value of $\$ 27,000$ and a fair value of $\$ 25,200$. Both companies use the FIFO inventory method and sell all of their inventories at least once per year. The net balance of accounts receivable is collected in the following year. On the acquisition date, the subsidiary's buildings and equipment, net had a remaining useful life of 6 years, the Customer List had a remaining useful life of 7 years, and notes payable had a remaining term of 4 years.

On January 1, 2021, the parent sold a building to the subsidiary for $\$ 81,900$. On this date, the building was carried on the parent's books (net of accumulated depreciation) at $\$ 63,000$. Both companies estimated that the building has a remaining life of 6 years on the intercompany sale date, with no salvage value.

Each company routinely sells merchandise to the other company, with a profit margin of 25 percent of selling price (regardless of the direction of the sale). During 2022, intercompany sales amount to $\$ 18,900$, of which $\$ 10,080$ of merchandise remains in the ending inventory of the parent. On December $31,2022, \$ 5,040$ of these intercompany sales remained unpaid. Additionally, the subsidiary's December 31,2021 , inventory includes $\$ 15,120$ of merchandise purchased in the preceding year from the parent. During 2021, intercompany sales amount to $\$ 22,500$, and on December 31, 2021, $\$ 3,600$ of these intercompany sales remained unpaid. Following are pre-consolidation financial statements of the parent and its subsidiary for the year ended December 31, 2022. The parent uses the equity method of pre-consolidation investment bookkeeping.

|  | Parent | Subsidiary |  | Parent | Subsidiary |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Income statement: |  |  | Balance sheet: |  |  |
| Sales. | \$612,000 | \$226,800 | Cash. | \$ 43,020 | \$ 18,900 |
| Cost of goods sold | $(309,600)$ | $(136,080)$ | Accounts receivable | 67,500 | 61,200 |
| Gross profit. | 302,400 | 90,720 | Inventories | 163,800 | 58,500 |
| Deprec. \& amort. expense | $(15,120)$ | $(12,060)$ | Buildings and equipment, net Other assets . . . . . . . . | 158,400 | 113,400 |
| Operating expenses | $(196,560)$ | $(48,420)$ | Customer list. | 0 | 12,600 |
| Total expenses | (211,680) | $(60,480)$ | Investment in subsidiary | 334,980 | 0 |
| Income (loss) from subsidiary | 23,310 | - | Total assets. | \$839,700 | \$390,600 |
| Net income | \$114,030 | \$ 30,240 | Accounts payable | \$ 40,500 | \$ 16,200 |
|  |  |  | Notes payable. | 63,000 | 27,000 |
| Retained earnings statement: |  |  | Other liabilities | 27,720 | 32,400 |
| Beginning retained earnings. | \$367,650 | \$138,600 | Common stock | 302,400 | 163,800 |
| Net income. Dividends | 114,030 $(75,600)$ | 30,240 <br> $(17,640)$ | Retained earnings | 406,080 | 151,200 |
| Ending retained earnings . . | \$406,080 | \$151,200 | Total liabilities and equity | $\underline{\text { \$839,700 }}$ | \$390,600 |

a. Disaggregate and document the activity for the $100 \%$ Acquisition Accounting Premium (AAP).
b. Calculate and organize the profits and losses on intercompany transactions and balances.
c. Compute the pre-consolidation Equity Investment account beginning and ending balances starting with the stockholders' equity of the subsidiary.
d. Reconstruct the activity in the parent's pre-consolidation Equity Investment T-account for the year of consolidation.
$e$. Complete the consolidating entries according to the $\mathbf{C}-\mathbf{E}-\mathbf{A}-\mathrm{D}-\mathrm{I}$ sequence and complete the consolidation worksheet.

## CPA SIMULATIONS AND PRACTICE EXAM

Sample CPA Exam Simulations and Practice Exams from Gleim CPA Exam Prep are available at gleim.com/ CambridgeCPA.

## TOPIC REVIEW

Solution 4.1 (pages 210-211)

| Upstream Sale | Parent | Subsidiary | Consolidation Entries |  |  |  | Consolidated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dr |  |  | Cr |  |
| Income statement: |  |  |  |  |  |  |  |
| Sales. | \$5,000,000 | \$1,500,000 | [ ${ }_{\text {sales }}$ ] | \$ 100,000 |  |  | \$6,400,000 |
| Cost of goods sold | $(3,000,000)$ | $(900,000)$ | [ $l_{\text {cogs }}$ ] | 20,000 | [ $\mathrm{l}_{\text {cogs }}$ ] | \$ 10,000 | $(3,810,000)$ |
|  |  |  |  |  | [ $\mathrm{l}_{\text {sales }}$ ] | 100,000 |  |
| Gross profit. | 2,000,000 | 600,000 |  |  |  |  | 2,590,000 |
| Income (loss) from subsidiary | 70,000 |  | [C] | 70,000 |  |  | 0 |
| Operating expenses . | $(1,500,000)$ | $(500,000)$ | [D] | 20,000 |  |  | $(2,302,500)$ |
| Net income | \$ 570,000 | \$ 100,000 |  |  |  |  | \$ 570,000 |
| Statement of retained earnings: |  |  |  |  |  |  |  |
| Beginning retained earnings. . . . . | \$1,430,000 | \$ 420,000 | [E] | 420,000 |  |  | \$1,430,000 |
| Net income. | 570,000 | 100,000 |  |  |  |  | 570,000 |
| Dividends | $(300,000)$ | $(20,000)$ |  |  | [C] | 20,000 | $(300,000)$ |
| Ending retained earnings . | \$1,700,000 | \$ 500,000 |  |  |  |  | \$1,700,000 |
| Balance sheet: |  |  |  |  |  |  |  |
| Assets |  |  |  |  |  |  |  |
| Cash. | \$ 500,000 | \$ 100,000 |  |  |  |  | \$ 600,000 |
| Accounts receivable | 700,000 | 200,000 |  |  | [1 ${ }_{\text {pay }}$ ] | 50,000 | 850,000 |
| Inventory. | 900,000 | 300,000 |  |  | [ $\mathrm{l}_{\text {cogs }}$ ] | 20,000 | 1,180,000 |
| Equity investment . | \$1,000,000 |  | [ ${ }_{\text {cogs }}$ ] | 10,000 | [C] | 50,000 | 0 |
|  |  |  |  |  | [E] | 720,000 |  |
|  |  |  |  |  | [A] | 240,000 |  |
| Property, plant, and equipment (PPE), net . | 4,000,000 | 900,000 | [A] | 105,000 | [D] | 15,000 | 4,990,000 |
| Patent. |  |  | [A] | 45,000 | [D] | 5,000 | 40,000 |
| Goodwill |  |  | [A] | 90,000 |  |  | 90,000 |
|  | \$7,100,000 | \$1,500,000 |  |  |  |  | \$7,7500,000 |
| Liabilities and stockholders' equity |  |  |  |  |  |  |  |
| Current liabilities. . . . . . . . . . . . . | \$ 400,000 | \$ 300,000 | $\left.{ }^{[1}{ }_{\text {pay }}\right]$ | 50,000 |  |  | \$ 650,000 |
| Long-term liabilities | 3,500,000 | 400,000 |  |  |  |  | 3,900,000 |
| Common stock | 500,000 | 100,000 | [E] | 100,000 |  |  | 500,000 |
| APIC. | 1,000,000 | 200,000 | [E] | 200,000 |  |  | 1,000,000 |
| Retained earnings | \$1,700,000 | 500,000 |  |  |  |  | \$1,700,000 |
|  | \$7,100,000 | \$1,500,000 |  | \$1,230,000 |  | \$1,230,000 | \$7,750,000 |


|  | Parent | Subsidiary | Consolidation Entries |  |  |  | Consolidated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dr |  |  | Cr |  |
| Income statement: |  |  |  |  |  |  |  |
| Sales. | \$2,000,000 | \$1,200,000 | [ s sales ] | \$ 80,000 |  |  | \$3,120,000 |
| Cost of goods sold | $(1,200,000)$ | $(720,000)$ | [ $\mathrm{l}_{\text {cogs }}$ ] | 9,000 | [ ${ }_{\text {cogs }}$ ] | \$ 7,500 | $(1,841,500)$ |
|  |  |  |  |  | [ $\mathrm{l}_{\text {sales }}$ ] | 80,000 |  |
| Gross profit. | 800,000 | 480,000 |  |  |  |  | 1,278,500 |
| Depreciation \& amort expense. | $(120,000)$ | $(100,000)$ | [D] | 15,000 | $\left[l_{\text {dep }}\right]$ | 5,000 | $(230,000)$ |
| Operating expenses | $(400,000)$ | $(250,000)$ |  |  |  |  | $(650,000)$ |
| Interest expense | $(60,000)$ | $(30,000)$ |  |  | [D] | 2,000 | $(88,000)$ |
| Total expenses | $(580,000)$ | $(380,000)$ |  |  |  |  | $(968,000)$ |
| Investment income from subsidiary | 90,500 |  | [C] | 90,500 |  |  | - |
| Consolidated net income | \$ 310,500 | \$ 100,000 |  |  |  |  | \$ 310,500 |
| Retained earnings statement: |  |  |  |  |  |  |  |
| Beginning retained earnings. . . |  |  | [E] | 392,000 |  |  |  |
| Net income . Dividends . | $\begin{gathered} 310,500 \\ (100,000) \end{gathered}$ | $\begin{aligned} & 100,000 \\ & (60,000) \end{aligned}$ |  |  | [C] | 60,000 | $\begin{gathered} 310,500 \\ (100,000) \end{gathered}$ |
| Ending retained earnings . | \$ 884,000 | \$ 432,000 |  |  |  |  | \$ 884,000 |
| Balance sheet: |  |  |  |  |  |  |  |
| Cash. | \$ 42,000 | \$ 28,000 |  |  |  |  | \$ 70,000 |
| Accounts receivable | 168,000 | 98,000 |  |  | [ $\left.{ }_{\text {pay }}\right]$ | 20,000 | 246,000 |
| Inventories | 280,000 | 168,000 |  |  | [ ${ }_{\text {cogs }}$ ] | 9,000 | 439,000 |
| Property, plant, \& equipment, net. | 840,000 | 700,000 | [A] | 70,000 | [D] | 10,000 | 1,560,000 |
|  |  |  | $\left[I_{\text {dep }}\right]$ | 5,000 | [ ${ }_{\text {asset }}$ ] | 45,000 |  |
| Patents. | - | - | [A] | 25,000 | [D] | 5,000 | 20,000 |
| Other assets . | 140,000 | 84,000 |  |  |  |  | 224,000 |
| Investment in Subsidiary | 556,000 |  | [ lcogs ] | 7,500 | [C] | 30,500 | - |
|  |  |  | [ lasset ] | 45,000 | [E] | 452,000 |  |
|  |  |  |  |  | [A] | 126,000 |  |
| Goodwill |  |  | [ A ] | 35,000 |  |  | 35,000 |
| Assets. | \$2,026,000 | \$1,078,000 |  |  |  |  | \$2,594,000 |
| Accounts payable . | \$210,000 | \$ 126,000 | $\left.{ }^{[1}{ }_{\text {pay }}\right]$ | 20,000 |  |  | \$ 316,000 |
| Notes payable. | 450,000 | 320,000 | [D] | 2,000 | [A] | 4,000 | 772,000 |
| Other liabilities | 382,000 | 140,000 |  |  |  |  | 522,000 |
| Common stock | 100,000 | 60,000 | [E] | 60,000 |  |  | 100,000 |
| Retained earnings | 884,000 | 432,000 |  |  |  |  | 884,000 |
| Liabilities and stockholders' equity . | \$2,026,000 | \$1,078,000 |  | \$856,000 |  | \$856,000 | \$2,594,000 |

LO2 30. Examples of variable interests Which of the following is not a variable interest?
a. U.S. treasury bond
b. Guarantee of indebtedness
c. Common stock
d. Corporate bond rated BBB- by Standard \& Poors
31. Scope of FASB ASC 810 ("Consolidations") Which of the following is not automatically exempt from the consolidation guidance included in FASB ASC 810 ("Consolidations")?
a. Legal entities that meet the definition of "businesses" as defined by FASB ASC 805 ("Business Combinations")
b. Legal entities that qualify as investments accounted for at fair value in accordance with the specialized guidance in FASB ASC 946 ("Financial Services-Investment Companies")
c. Legal entities that are not-for profit
d. Legal entities that administer employee benefit plans subject to FASB ASC 712 ("Compensation-Nonretirement Postemployment Benefits")
32. Shortcut to voting interest entity consolidation evaluation

If a legal entity is within the scope of FASB ASC $\mathbf{8 1 0}$ ("Consolidations"), when can a reporting company completely skip an evaluation of whether the legal entity is a variable interest entity (i.e., the "variable interest entity model") and solely determine consolidation based on whether the reporting company owns a majority of the voting common stock of the legal entity (i.e., the "voting interest entity model")?
$a$. The legal entity is only capitalized with a bank loan and voting common stock.
$b$. The reporting company does not have the obligation to absorb the losses of the legal entity that could potentially be significant to the legal entity.
c. The reporting company does not have the power to direct the activities that most significantly impact the legal entity's business activities.
d. The legal entity satisfies none of the four conditions for the business-related scope exception.
33. Determination of primary beneficiary

FASB ASC 810 ("Consolidations") states that a Primary Beneficiary is the company that consolidates a variable interest entity (VIE). Which of the following is not a triggering condition for a reporting entity to be deemed the Primary Beneficiary of a VIE in which the reporting entity has a variable interest?
$a$. Both $c$ and $d$, below, are not triggering conditions.
$b$. The reporting entity owns a majority of the voting common stock of the VIE.
c. The reporting entity has the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE.
d. The reporting entity has the power to direct the activities of a VIE that most significantly impact the VIE's economic performance.
34. Initial recognition of consolidated legal entity by primary beneficiary

When a Primary Beneficiary initially consolidates a variable interest entity (VIE), the primary beneficiary must determine whether the VIE is a "business" as defined by FASB ASC $\mathbf{8 0 5}$ ("Business Combinations") because
a. FASB ASC 805 only applies to acquisitions of "businesses," so the Primary Beneficiary can avoid consolidation if the VIE is not a business.
b. Goodwill is recognized by the Primary Beneficiary only when a consolidated VIE is a "business."
c. The initial consolidation-date fair value of the VIE's identifiable net assets will depend on whether the VIE is a "business."
d. If the VIE is not a "business," then a gain or loss is always recognized upon initial consolidation by a Primary Beneficiary.

LO3 35. Effects on consolidated financial statements of acquisition of affiliate's debt from non-affiliate On January 1, 2022, a Parent company has a debt outstanding that was originally issued at a discount and was purchased, on issuance, by an unaffiliated party. On January 1, 2022, a Subsidiary of the Parent purchased the debt from the unaffiliated party. The debt was purchased by the Subsidiary at a slight premium. The Parent is a calendar year company. Which one of the following statements is true?
a. The consolidated balance sheet at December 31, 2022, will report the debt, and the consolidated income statement for the year ended December 31, 2022, will report a gain or loss from constructive retirement of the debt and will not report any interest expense from the debt.
b. The consolidated balance sheet at December 31, 2022, will report the debt, and the consolidated income statement for the year ended December 31, 2022, will not report any interest expense from the debt.
c. The consolidated balance sheet at December 31, 2022, will report none of the debt, and the consolidated income statement for the year ended December 31, 2022, will report a gain or loss from constructive retirement of the debt and will not report any interest expense from the debt.
d. The consolidated balance sheet at December 31, 2022, will report none of the debt, and the consolidated income statement for the year ended December 31, 2022, will report a gain or loss from constructive retirement of the debt and will report interest expense from the debt.
36. Effects on consolidated financial statements of acquisition of affiliate's debt from non-affiliate On January 1, 2022, a Parent company has a debt outstanding that originally was issued at a discount and was purchased, on issuance, by an unaffiliated party. On July 1, 2022, a Subsidiary of the Parent purchased the debt from the unaffiliated party. The debt was purchased by the Subsidiary at a slight premium. The Parent is a calendar year company. Which one of the following statements is true?
a. The consolidated balance sheet at December 31, 2022, will report none of the debt, and the consolidated income statement for the year ended December 31, 2022, will report a gain or loss from constructive retirement of the debt and will report some interest expense from the debt.
b. The consolidated balance sheet at December 31, 2022, will report none of the debt, and the consolidated income statement for the year ended December 31, 2022, will report a gain or loss from constructive retirement of the debt and will not report any interest expense from the debt.
c. The consolidated balance sheet at December 31, 2022, will report the debt, and the consolidated income statement for the year ended December 31, 2022, will report a gain or loss from constructive retirement of the debt and will not report any interest expense from the debt.
d. The consolidated balance sheet at December 31, 2022, will report none of the debt, and the consolidated income statement for the year ended December 31, 2022, will not report any interest expense from the debt.
37. Effect on consolidated net income of acquisition of affiliate's debt from non-affiliate

A Parent Company owns 100 percent of its Subsidiary. During 2021, the Parent company reports net income (by itself, without any investment income from its Subsidiary) of $\$ 450,000$, and the subsidiary reports net income of $\$ 180,000$. The parent had a bond payable outstanding on January 1, 2021, with a carrying value equal to $\$ 378,000$. The Subsidiary acquired the bond on January 1, 2021, for $\$ 353,700$. During 2021, the Parent reported interest expense (related to the bond) of $\$ 28,800$, while the Subsidiary reported interest income (related to the bond) of $\$ 31,500$. What is consolidated net income for the year ended December 31, 2021 ?
a. $\$ 651,600$
b. $\$ 654,300$
c. $\$ 627,300$
. Effect on consolidated net income of acquisition of affiliate's debt from non-affiliate
A Parent Company owns 100 percent of its Subsidiary. During 2022, the Parent company reports net income (by itself, without any investment income from its Subsidiary) of $\$ 450,000$, and the subsidiary reports net income of $\$ 180,000$. The parent had a bond payable outstanding on January 1, 2021, with a carrying value equal to $\$ 378,000$. The Subsidiary acquired the bond on January 1, 2021, for $\$ 353,700$. During 2022, the Parent reported interest expense (related to the bond) of $\$ 28,800$ while the Subsidiary reported interest income (related to the bond) of $\$ 31,500$. What is consolidated net income for the year ended December 31, 2022?
a. $\$ 651,600$
b. $\$ 654,300$
c. $\$ 627,300$
d. $\$ 630,000$
39. Effect on consolidated net income of acquisition of affiliate's debt from non-affiliate

A Parent Company owns 100 percent of its Subsidiary. During 2021, the Parent company reports net income (by itself, without any investment income from its Subsidiary) of $\$ 1,150,000$, and the subsidiary reports net income of $\$ 460,000$. The parent had a bond payable outstanding on December 31, 2021, with a carrying value equal to $\$ 966,000$. The Subsidiary acquired the bond on December 31, 2021, for $\$ 908,500$. During 2021, the Parent reported interest expense (related to the bond) of $\$ 80,500$ while the

## COMPREHENSIVE REVIEW SOLUTION-COST METHOD

a. See Part $a$ of the Equity Method Comprehensive Review solution.
b. See Part $b$ of the Equity Method Comprehensive Review solution.
c. In the present case, the amount of the [ADJ] entry is computed as follows:

| 90\% of change in subsidiary retained earnings from acquisition date through BOY $=(90 \% \times[\$ 237,387-\$ 138,000]) .$ | \$89,448 |
| :---: | :---: |
| Less: Cumulative $90 \%$ AAP amortization from acquisition date through BOY $=\$ 43,200(4 \times \$ 10,800) .$ | $(43,200)$ |
| Less: 100\% of the BOY downstream unconfirmed intercompany inventory profits | N/A |
| Less: $90 \%$ of the BOY upstream unconfirmed intercompany inventory profits ( $90 \% \times \$ 3,600$ ) | $(3,240)$ |
| Less: $100 \%$ of the BOY downstream unconfirmed intercompany depreciable asset profis | $(29,160)$ |
| Less: $90 \%$ of the BOY upstream unconfirmed intercompany depreciable asset profits | N/A |
| Add: $100 \%$ of confirmed intercompany bond gain not yet recognized in the separate pre-consolidation income statements of the affiliates via amortization of premium and discount. | 16,032 |
| [ADJ] amount at BOY. | \$29,880 |

d.

| [ADJ] | Investment in subsidiary. Retained earnings-Parent (BOY). | 29,880 | 29,880 |
| :---: | :---: | :---: | :---: |
| [C] | Investment income from subsidiary Income attributable to NCI <br> Dividends-subsidiary (common) <br> Noncontrolling interest. | $\begin{aligned} & 8,640 \\ & 4,047 \end{aligned}$ | $\begin{aligned} & 9,600 \\ & 3,087 \end{aligned}$ |
| [E] | Common stock (S) @ BOY. <br> APIC <br> Retained earnings (S) @ BOY Investment in subsidiary @ BOY Noncontrolling interest @ BOY | $\begin{array}{r} 72,000 \\ 120,000 \\ 237,387 \end{array}$ | $\begin{array}{r} 386,448 \\ 42,939 \end{array}$ |
| [A] | Patent <br> Goodwill Investment in subsidiary @ BOY Noncontrolling interest @ BOY | $\begin{aligned} & 72,000 \\ & 60,000 \end{aligned}$ | $\begin{array}{r} 118,800 \\ 13,200 \end{array}$ |
| [D] | Depreciation \& amortization expense. Patent | 12,000 | 12,000 |
| [ ${ }_{\text {cogs }}$ ] | Investment in subsidiary @ BOY Noncontrolling interest @ BOY. Cost of goods sold. . . . | $\begin{array}{r} 3,240 \\ 360 \end{array}$ | 3,600 |
| [ s sales ] | Sales. <br> Cost of goods sold | 36,000 | 36,000 |
| $\left[\mathrm{l}_{\text {cogs }}\right]$ | Cost of goods sold Inventories . | 6,000 | 6,000 |
| [ ${ }_{\text {pay }}$ ] | Accounts payable . . . . . . . . Accounts receivable. | 12,000 | 12,000 |
| $\left[\mathrm{l}_{\text {asset }}\right]$ | Investment in subsidiary @ BOY Property, plant \& equipment, net @ BOY | 29,160 | 29,160 |
| [ ${ }_{\text {dep }}$ ] | Property, plant \& equipment, net Operating expenses. | 3,240 | 3,240 |
| [ $\left.\mathrm{b}_{\text {bond }}\right]$ | Bond payable (net) Interest income. Investment in bonds (net) Interest expense BOY Investment in subsidiary | $\begin{array}{r} 305,342 \\ 17,673 \end{array}$ | $\begin{array}{r} 294,654 \\ 12,329 \\ 16,032 \end{array}$ |

## 18. Recognizing foreign currency exchange losses

On September 3, 2021, a U.S.-based company with the \$US as its functional currency purchased merchandise for 25,600 units of the foreign company's local currency. On that date, the spot rate was $\$ 1.44$. The U.S.-based company paid the bill in full on February 15, 2022, when the spot rate was $\$ 1.41$. The spot rate was $\$ 1.40$ on December 31, 2021. What amount should the U.S.-based company report as a foreign currency transaction gain (loss) in its income statement for the year ended December 31, 2021?
a. $\quad \$ 768.00$
c. $\$ 1,024.00$
b. $\quad \$(768.00)$
d. \$(1024.00)

## Use the following facts for Multiple Choice problems 19 through 20:

On November 1, 2021, our company sells to a retailer located in Spain 16,500 units of a product at a sales price of $€ 18$ per unit, and we require payment in Euros ( $€$ ). The exchange rate on the date of sale is $\$ 1.22: € 1$. The due date for payment is February 1, 2022. To mitigate the risk of exchange rate fluctuations between the sale date and the collection date, on November 1, 2021, our company enters into a forward contract with an exchange broker. The contract obligates our company to deliver $€ 180,000$ on February 1, 2022, while we lock in the \$US we will receive on that date at the forward rate of $\$ 1.26$ : $€ 1$ (i.e., the forward rate on November 1, 2021 for settlement on February 1, 2022). Assume this derivative qualifies as a fair value hedge. The following table includes the spot rates and forward rates on November 1, 2021, December 31, 2021, and February 1, 2022: Our company's functional currency and reporting currency is the \$US. When computing fair values, ignore discounting.

| Date | Spot Rate (\$US = €1) | Forward Rate ${ }^{\text {a }}$ (\$US = €1) |
| :---: | :---: | :---: |
| November 1, 2021 | 1.22 | 1.26 |
| December 31, 2021 | 1.33 | 1.34 |
| February 1, 2022 | 1.37 | 1.37 |

${ }^{a}$ For settlement on February 1, 2022
19. Recording adjustments to accounts receivable denominated in a foreign currency

The adjustment of the Euro-denominated accounts receivable at December 31, 2021, will include which of the following debit or credit amounts?
a. \$23,760 debit to "Sales"
c. $\$ 397,980$ credit to "Sales"
b. $\$ 32,670$ debit to "Accounts receivable"
d. $\$ 395,010$ debit to "Accounts receivable"

## 20. Recording adjustments to derivative designated as a fair value hedge of a foreign-currency denominated accounts receivable

The adjustment of the foreign currency forward contract at December 31, 2021, will include which of the following debit or credit amounts?
a. $\$ 23,760$ debit to "Sales"
b. $\$ 23,760$ debit to "Forward contract (asset or liability)"
c. $\$ 32,670$ credit to "Forward contract (asset or liability)"
d. $\$ 397,980$ credit to "Forward contract (asset or liability)"

## Use the following facts for Multiple Choice problems 21 through 23:

Assume our U.S.-based company's functional currency is the \$US and it enters into a "firm commitment" with a Portugal-based retailer on November 15, 2021. The firm commitment requires our company to sell 30,000 units of an inventory item costing $€ 20$ each to the Portuguese company. Our company is contractually committed to ship the inventory (i.e., title transfers) on February 15, 2022, with payment in Euros on the same date. Our company does recurring business with the Portuguese company, and the firm commitment includes significant monetary penalties for nonperformance. Also assume, on November 15, 2021, our company enters into a contract with a foreign currency exchange broker to sell Euros (for settlement on February 15, 2022) to mitigate the risk of exchange rate fluctuation. This derivative qualifies as a fair value hedge. The relevant exchange rates and related balances for the period from November 15, 2021, to February 15,2022 , are as follows:

| Date | Spot Rate(\$US = €1) | Forward Rate ${ }^{\text {a }}$(\$US = €1) | Derivative-Forward |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | FVb | Change in FV |
| November 15, 2021 | 1.45 | 1.40 |  |  |
| December 31, 2021 | 1.40 | 1.38 | \$12,000 | \$12,000 |
| February 15, 2022 | 1.30 | 1.30 | 60,000 | 48,000 |

${ }^{\text {a F For settlement on February 15, } 2022}$
${ }^{\mathrm{b}}$ Ignore discounting in the computation of fair values.

| November 3. | \$0.75:CAD\$1 |
| :---: | :---: |
| December 31 | \$0.70:CAD\$1 |
| February 1 | \$0.72:CAD\$1 |

Prepare the journal entries to record the purchase (assume perpetual inventory accounting), the required adjusting entry at December 31, and the payment on February 1.

LO1 32. Journal entries for an accounts receivable denominated in Euros (\$US weakens and strengthens) Assume that your company sells products to a customer located in France on October 15. The invoice specifies that payment is to be made on January 15 in Euros ( $€$ ) in the amount of $€ 468,000$. Your company operates on a calendar-year basis.

Assume the following exchange rates:

|  |  |
| :--- | :--- |
| October $15 \ldots \ldots \ldots \ldots \ldots$ | $\ldots \ldots \ldots$ |
| December $31 \ldots \ldots \ldots \ldots$ | $\$ 1.17: € 1$ |
| January $15 \ldots \ldots \ldots \ldots$ | $\$ 1.24: € 1$ |
|  | $\$ 1.20: € 1$ |

Prepare the journal entries to record the sale (ignore cost of goods sold), the required adjusting entry at December 31, and the receipt of payment January 15.

LO1 33. Journal entries for an accounts receivable denominated in Swiss Francs (\$US strengthens and weakens)
Assume that your company sells products to a customer located in Switzerland on November 20. The invoice specifies that payment is to be made on February 20 in Swiss Francs (CHF) in the amount of CHF 246,000. Your company operates on a calendar-year basis.

Assume the following exchange rates:

| November $20 \ldots \ldots \ldots \ldots \ldots .$. | $\$ 1.13: 1 \mathrm{CHF}$ |
| :--- | :--- |
| December $31 \ldots \ldots \ldots \ldots \ldots .$. | $\$ 1.10: 1 \mathrm{CHF}$ |
| February $20 \ldots \ldots \ldots \ldots \ldots .$. | $\$ 1.12: 1 \mathrm{CHF}$ |

Prepare the journal entries to record the sale (ignore cost of goods sold), the required adjusting entry at December 31, and the receipt of payment February 20.
34. Forward exchange contract designated as a fair value hedge of a foreign-currency-denominated accounts receivable, weakening \$US
On October 15, 2021, our company sells to a retailer located in Austria 16,200 units of a product at a sales price of $€ 35$ per unit, and we require payment in Euros ( $€$ ). The exchange rate on the date of sale is $\$ 1.25: € 1$, and the due date for payment is January 15,2022 . To mitigate the risk of exchange rate fluctuations between the sale date and the collection date, on October 15, 2021, our company enters into a forward contract with an exchange broker. The contract obligates our company to deliver $€ 567,000$ on January 15, 2022, while we lock in the \$US we will receive on that date at the forward rate of $\$ 1.29: € 1$ (i.e., the forward rate on October 15, 2021 for settlement on January 15, 2022). Assume this derivative qualifies as a fair value hedge, and our company's functional currency and reporting currency is the \$US. The following table includes the spot rates, forward rates, and related values of the accounts receivable and forward contract on October 15, 2021, December 31, 2021, and January 15, 2022. When computing fair values, ignore discounting.

| Date | Spot Rate (\$US = €1) | FC Accounts Receivable |  | $\begin{aligned} & \text { Forward } \\ & \text { Rate }^{\text {a }} \\ & (\$ U S=€ 1) \end{aligned}$ | Derivative-Forward |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Carrying Value | Change in Carry Val. |  | FV Asset (Liability) ${ }^{\text {b }}$ | Change in FV |
| October 15, 2021 | 1.25 | \$708,750 |  | 1.29 |  |  |
| December 31, 2021 | 1.36 | 771,120 | \$62,370 | 1.37 | \$(45,360) | \$(45,360) |
| January 15, 2022 | 1.40 | 793,800 | 22,680 | 1.40 | $(62,370)$ | $(17,010)$ |

${ }^{\text {a }}$ For settlement on January 15, $2022 \quad{ }^{\text {b }}$ Ignore discounting in the computation of fair values.
a. Prepare the journal entries to record the sale and all adjustments required for the accounts receivable and forward contract at October 15, 2021, December 31, 2021, and January 15, 2022.
b. Reconcile to the forward rate at the forward contract's inception the net cash received for both the settlement of the receivable and the settlement of the forward-contract derivative.
c. What amount of sales was recognized in the quarter ending December 31, 2021? What amount of sales was recognized in the quarter ending March 31, 2022? Explain these amounts. What is the
a. What does the relation between the spot and forward prices of copper tell you about the market's expectations for the price of copper through December?
b. What is the risk that we are trying to mitigate by the purchase of the forward contract?
c. At what price will the inventory be recognized when it is purchased on December 31 if the forecasts in the table above prove accurate?
d. What will be the net cash cost of the inventory if the forecasts in the table above prove accurate?

## 52. ${ }^{\mathrm{E}}$ Journal entries for fair value hedge

Using the data in Exercise 51, prepare the required journal entries at September 30 and December 31.
53. ${ }^{\text {E }}$ Reported gain or loss on hedging transaction
On September 30, we enter into a futures contract to hedge the value of gold, which we use on our manufacturing process and report on our balance sheet at $\$ 472,500$. On December 31, the market value of gold had declined to $\$ 432,000$. However, the futures contact that we had purchased increased in value by $\$ 33,750$.
a. How much net profit or loss will be recognized?
b. Will this profit or loss be reflected in net income or other comprehensive income?
54. ${ }^{\text {E }}$ Cash flow hedge of anticipated purchase of inventory

We are a manufacturing company that uses gold in the production of our products. In January, we expect to acquire at least 800 ounces of gold in April and, to mitigate the risk of a price rise in the interim, we purchase eight at-the-money spot April $\$ 1,455 /$ oz. call options for a premium of $\$ 37.50$ an ounce (because each call option is for a notional amount of 100 ounces of gold). The relevant data are as follows:

| Hedging Instrument and Commodity Price <br> Gold Spot Price |  |  |  |
| :--- | :---: | :---: | :---: |
| Date | Option Strike Price | Option Premium |  |
| January. . . . . . . . . | $\$ 1,455$ | $\$ 1,455$ | $\$ 37.50$ |
| April $\ldots \ldots \ldots \ldots \ldots$ | $\$ 1,580$ |  |  |

a. Discuss the economic rationale for the purchase of the call options.
b. Compute the options' intrinsic value and value from all other sources (e.g., time value) at January and April.
c. Will we account for this hedge as a fair value hedge or a cash flow hedge?
d. Describe the accounting for the options' intrinsic value and value from all other sources (e.g., time value).
$e$. Describe the accounting for unrealized gains or losses on the call option.
55. ${ }^{\text {E }}$ Accounting for fair value hedge of inventory (no ineffectiveness in the hedge) ${ }^{32}$

Our company reports commodities inventory on our balance sheet at $\$ 675,000$. The inventory has a fair value of $\$ 729,000$, and we are concerned about a forecasted decline in the commodity price. We purchase a financial derivative in order to mitigate this risk. On the last day of the period, the fair value of the inventory has declined by $\$ 18,000$, and the fair value of the derivative has increased by $\$ 18,000$. All of the inventory is sold at its fair value, and the derivative is settled on the last day of the period. Complete the following table of the required journal entries during the period:

|  | Debit (Credit) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Cash | Derivative | Inventory | Earnings |
|  |  | $\square$ |  |  |
| Recognize the change in the fair value of the inventory. |  |  |  |  |
| Recognize revenue from the sale |  |  |  |  |
| Recognize cost of goods sold relating to the sale . . |  | $\longrightarrow$ | $\underline{\square}$ | $\square$ |
| Recognize settlement of the derivative. . . . . . . . |  | $\underline{\square}$ |  |  |
| Total . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |  |

56. ${ }^{\text {E }}$ Accounting for fair value hedge of inventory (ineffectiveness in the hedge) ${ }^{33}$

Assume the same facts in exercise $55^{\mathrm{E}}$ except that the terms of the derivative security instrument do not perfectly match the inventory and its fair value has increased by $\$ 16,200$ as compared with the decline in fair value of the inventory of $\$ 18,000$. Complete the following table of the required journal entries during the period:

[^0]|  | Debit (Credit) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Cash | Derivative | Inventory | Earnings |
| Recognize the change in the fair value of the derivative |  |  |  |  |
| Recognize the change in the fair value of the inventory. |  |  |  |  |
| Recognize revenue from the sale. |  |  |  |  |
| Recognize cost of goods sold relating to the sale |  |  | - |  |
| Recognize settlement of the derivative. |  |  |  |  |
| Total |  |  |  |  |

## 57. ${ }^{\text {E }}$ Accounting for cash flow hedge of the forecasted sale of a commodity inventory ${ }^{\mathbf{3 4}}$

Assume that our company decides to hedge the risk of changes in its cash flows relating to a forecasted sale of 60,000 bushels of wheat by entering into a derivative instrument. We expect to sell the 60,000 bushels of wheat on the last day of the period. On the first day of the period, we enter into a derivative contract and designate it as a cash flow hedge of the forecasted sale (assume that we neither pay nor receive a premium on the derivative security and its fair value is zero at inception). Assume that the hedging relationship qualifies for cash flow hedge accounting and that we expect that there will be no ineffectiveness from the hedge.

At inception of the hedge, the expected sales price of 60,000 bushels of wheat is $\$ 656,250$. On the last day of the period, the fair value of the derivative has increased by $\$ 12,000$, and the expected sales price of 60,000 bushels of wheat has decreased by $\$ 12,000$. Both the sale of 60,000 bushels of wheat and the settlement of the derivative contract occur on the last day of the period.

Complete the following table of the required journal entries during the period:

|  | Debit (Credit) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Cash | Derivative | OCl | Earnings |
| Recognize the change in the fair value of the derivative |  |  |  |  |
| Recognize revenue from the sale. |  |  |  |  |
| Recognize settlement of the derivative. |  |  |  |  |
| Reclassify the change in the fair value of the derivative instrument to earnings |  |  |  |  |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |  |

LO2 58. ${ }^{\mathrm{E}}$ Calculating the purchase cost of inventory in a fair value hedge of a firm commitment.
Assume that our company enters into a firm commitment on July 15 to purchase 920 troy ounces of gold in December that will be used in our manufacturing process. The firm price commitment is required by our supplier. We expect the price of gold to decline over this period, however, and would, therefore, prefer to purchase it at the prevailing market price. Therefore, on July 15, we enter into a six-month forward contract to sell 920 troy ounces of gold on December 15 at the current forward rate of $\$ 1,850 /$ troy ounce. The forward contract requires net cash settlement on December 15 and has a fair value of zero at inception. Assume that the spot price for gold is $\$ 1,770 /$ troy ounce on December 15. At what amount will the gold inventory be recorded when purchased?
59. ${ }^{\mathrm{E}}$ Interpreting footnote disclosure—Signet Jewelers Limited Signet Jewelers Limited is the large international jewelry company and the market leader in the United States. Its brands include Kay Jewelers, Zales Jewelers, and Jared Galleria of Jewelry. Because of the intensive use of precious metals in its products, Signet manages commodity price risk by using derivative financial instruments. The following table from the company's January 31, 2021, SEC Form 10-K summarizes the pre-tax gains (losses) recorded in accumulated other comprehensive income (AOCI) for commodities derivatives designated in cash flow hedging relationships:

| (in millions) | Statement of Operations Caption | Fiscal 2021 | Fiscal 2020 |
| :---: | :---: | :---: | :---: |
| Gains (losses) recorded in AOCI , beginning of period |  | \$17.7 | \$ 4.0 |
| Current period gains (losses) recognized in OCl |  | (1.9) | 15.4 |
| Gains reclassified from AOCl to net income. | Cost of sales ${ }^{(1)}$ | (6.9) | (1.7) |
| Gains from de-designated hedges reclassified from AOCl to net income | Other operating income (loss) ${ }^{(1)}$ | (9.3) | - |
| Gains (losses) recorded in AOCI , end of period. |  | \$ (0.4) | \$17.7 |

[^1]In your own words, explain the detailed activity in AOCI for Signet's commodities derivatives designated in cash flow hedging relationships.

## PROBLEMS

60. Use of futures contracts to hedge a receivable denominated in a foreign currency

In May, our company sells $\$ 891,000$ of inventory to a customer in France. The customer demands that the invoice be stated in Euros $(€)$. The exchange rate on the date of sale is $\$ 1.32: € 1$. Accordingly, the invoice is written for $€ 675,000$, and payment is due in 90 days. Our company feels that the $\$$ US has been oversold and is likely to rebound during the next 90 days, thus lowering the \$US equivalent of the receivable. The current futures price for 90-day delivery of $\$ 1.29$ reflects our view. Since we feel that the \$US is likely to strengthen even more, we purchase a forward contract to sell Euros at $\$ 1.29$ after 90 days.

Assume the following data relating to the spot and forward rates for the \$US vis-à-vis the Euro:

|  | Spot Rate | Forward Rate (for July settlement) |
| :---: | :---: | :---: |
| May. | \$1.32:€1 | \$1.29:€1 |
| June 30. | \$1.27:€1 | \$1.26:€1 |
| July . | \$1.25:€1 | n/a |

Prepare the journal entries to record the following:
a. Account receivable and sale (ignore cost of goods sold)
b. Adjusting entries on June 30
c. Collection of the accounts receivable in July
61. Use of forward exchange contracts to hedge a firm commitment to pay foreign currency

On September 30, our company has executed a purchase order for new equipment to be purchased from a supplier in Germany for a purchase price of €2.6 million. The terms of the purchase order meet the criteria of an unrecognized firm commitment. The equipment is deliverable on March 31 of next year. To hedge the commitment to pay $€ 2.6$ million, we enter into a forward exchange contract on September 30 to receive $€ 2.6$ million on March 31 at an exchange rate of $\$ 1.23: € 1$.

Assume the following exchange rates:

| Date | Spot Rates | March 31 (next year) |
| :--- | :---: | :--- |
| September $30 \ldots \ldots \ldots \ldots$ | $\$ 1.20: € 1$ | $\$ 1.23: € 1$ |
| December $31 \ldots \ldots \ldots \ldots$ | $\$ 1.23: € 1$ | $\$ 1.27: € 1$ |
| March 31 next year) $\ldots \ldots \ldots$ | $\$ 1.28: € 1$ | n 1 a |

Prepare the journal entries to record the following:
a. Execution of the purchase order and forward contract
b. Adjusting entries at December 31
c. Receipt of equipment and payment to equipment supplier on March 31
62. Forward exchange contract designated as a fair value hedge of foreign currency risk in a
foreign-currency-denominated available-for-sale debt security, weakening \$US
On October 15, 2021, our company purchased a foreign-currency-denominated AFS debt security for $€ 637,500$. Our company plans to sell the security in three months (i.e., on January 31). The spot rate on the date the security is purchased is $\$ 1.15: € 1$, and the company is concerned about the prospect of a strengthening \$US that will reduce the \$US fair value of the foreign-currency-denominated security. To hedge this risk, the company purchases a forward contract to sell $€ 637.500$ for $\$ 1.19: € 1$ (the current forward rate) on January 31, 2022. Our U.S.-based company's functional currency is the \$US. The spot and forward exchange rates and their effects on the recorded values of AFS security and the forwardcontract derivative are summarized in the following table:

## CPA SIMULATIONS AND PRACTICE EXAM

Sample CPA Exam Simulations and Practice Exams from Gleim CPA Exam Prep are available at gleim.com/ CambridgeCPA.

## Solution 7.1 (page 465)

| $a$. | November 2, 2021 | Inventories | 97,200 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Accounts payable. (9,000 units $\times € 9 /$ unit $\times \$ 1.20: € 1$ ) |  | 97,200 |
|  | December 31, 2021 | Foreign currency transaction loss*. | 4,050 |  |
|  |  | Accounts payable. (**),000 units $x € 9 /$ unit $\times \$ 1.25: € 1-\$ 97,200)$ |  | 4,050 |
|  | January 31, 2022 | Accounts payable | 101,250 |  |
|  |  | Foreign currency transaction loss. . Cash* <br> (*9,000 units $\times € 9$ unit $\times \$ 1.30: € 1$ ) | 4,050 | 105,300 |
| $b$. | November 2, 2021 | Accounts receivable | 97,200 |  |
|  |  | Sales (9,000 units $\times € 9 /$ unit $\times \$ 1.20: € 1$ ) |  | 97,200 |
|  | December 31, 2021 | Accounts receivable | 4,050 |  |
|  |  | Foreign currency transaction gain* (*9,000 units x €9/unit $\times \$ 1.25: € 1-\$ 97,200$ ) |  | 4,050 |
|  | January 31, 2022 | Cash* | 105,300 |  |
|  |  | Foreign currency transaction gain |  | 4,050 |
|  |  | Accounts receivable**. |  | 101,250 |

## Solution 7.2 (page 479)

| $a$. | Hedged Transaction |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Date | Accounts | Debit | Credit |
|  | October 31, 2021 | Must document hedging relationship and hedge effectiveness in accounting system. FV $=0$ at inception, so no entry |  |  |
|  | December 31, 2021 | Hedged firm commitment (asset) | 31,500 |  |
|  |  | Sales <br> (to record the creation of a firm commitment asset equal to the complement of the loss on the forward contract when the forward rate changed to \$1.25:€1) |  | 31,500 |
|  | January 31, 2022 | Cash. . | 800,100 |  |
|  |  | Sales <br> (to record sale of inventory at spot rate) |  | 800,100 |
|  |  | Hedged firm commitment (asset) . . . . . . . . . . . . . . . . . . . . . . | 12,600 |  |
|  |  | Sales (to record the change in value of the firm commitment asset through the settlement date when the exchange rate is $\$ 1.27: € 1$ ) |  | 12,600 |
|  |  | Sales. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 44,100 |  |
|  |  | Hedged firm commitment (asset) <br> (to reclassify the firm commitment asset to sales when the sales transaction is completed ) |  | 44,100 |


| (in CAD) | (in CAD) |  | (in CAD) |
| :---: | :---: | :---: | :---: |
| Income statement: | Balance sheet: | Statement of cash flows: |  |
| Sales. . . . . . . . . . . . . . . . . . 1,425,000 | Assets | Net income | 199,500 |
| Cost of goods sold . . . . . . . $\quad(855,000)$ | Cash. . . . . . . . . . . . . . . . . 405,555 | Change in accounts receivable. | $(55,100)$ |
| Gross profit. . . . . . . Operating expenses | Accounts receivable . . . . . . 330,600 | Change in inventories. | $(70,775)$ |
|  | Inventory. . . . . . . . . . . . . . . . 424,650 | Change in current liabilities | 40,280 |
| Net income | PPE, net | Net cash from operating activities | 113,905 |
|  | Total assets. . . . . . . . . . . . . 1,946,265 |  |  |
| Statement of retained earnings: | Liabilities and stockholders' equity | Change in PPE, net | $(72,960)$ |
| BOY retained earnings . . . . 748,125 | Current liabilities. . . . . . . . . 241,680 | Net cash from investing activities | $(72,960)$ |
| Net income . . . . . . . . . . . . . 199,500 | Long-term liabilities . . . . . . 563,160 |  |  |
| Dividends . . . . . . . . . . . . . $\quad$ (19,950) | Common stock . . . . . . . . . . . 95,000 | Change in long-term debt. | 93,860 |
| Ending retained earnings . . 9 927,675 | APIC . . . . . . . . . . . . . . . . . 118,750 | Dividends | $(19,950)$ |
|  | Retained earnings . . . . . . . 927,675 | Net cash from financing activities. | 73,910 |
|  | Cumulative translation adjustment | Net change in cash. . . . . . . . . . Effect of exchange rate on cash | 114,855 |
|  | Total liabilities and equity . . . 1,946,265 | Beginning cash... | 290,700 |
|  |  | Ending cash . | 405,555 |

The relevant exchange rates (\$:CAD) are as follows:

| BOY rate | \$0.77 |
| :---: | :---: |
| EOY rate. | \$0.83 |
| Avg. rate | \$0.80 |
| PPE purchase date rate | \$0.81 |
| LTD borrowing date rate | \$0.81 |
| Dividend rate | \$0.82 |
| Historical rate (common stock and APIC). | \$0.67 |

a. Translate the subsidiary's income statement, statement of retained earnings, balance sheet, and statement of cash flows into \$US (assume that the BOY Retained Earnings is \$584,368).
b. ${ }^{\text {A }}$ Compute the ending Cumulative Translation Adjustment directly, assuming a BOY credit balance of $\$ 13,065$.


## 34. Translation of financial statements

Assume that your company owns a subsidiary operating in Brazil. The subsidiary maintains its books in the Brazilian real (BRL) as its functional currency. Following are the subsidiary's financial statements (in BRL) for the most recent year:

|  | (in BRL) |  | (in BRL) |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

a. Translate the subsidiary's income statement, statement of retained earnings, balance sheet, and statement of cash flows into \$US (assume that the BOY Retained Earnings is $\$ 6,242,208$ ).
$b .^{A}$ Compute the ending Cumulative Translation Adjustment directly, assuming a BOY debit balance of $\$ 1,817,088$. What journal entries did the parent company make as a result of this computation?
c. Following are selected financial statement accounts for the parent:

| Income statement: |  | Balance sheet: |  |
| :---: | :---: | :---: | :---: |
| Sales. | \$29,472,000 | Assets |  |
| Cost of goods sold | $(20,630,400)$ | Cash. | \$ 2,926,406 |
| Gross profit. | 8,841,600 | Accounts receivable | 3,772,416 |
| Equity income | 1,147,776 | Inventory. | 5,717,568 |
| Operating expenses | $(5,599,680)$ | Equity investment. | 7,208,400 |
| Net income | \$ 4,389,696 | PPE, net | 30,450,470 |
|  |  |  | \$50,075,260 |
| Statement of retained earnings: |  |  |  |
| BOY retained earnings | \$25,382,400 | Liabilities and stockholders' equity |  |
| Net income | 4,389,696 | Current liabilities. | \$ 2,360,707 |
| Dividends | $(1,015,296)$ | Long-term liabilities | 1,600,000 |
| Ending retained earnings . | \$28,756,800 | Common stock | 3,346,208 |
|  |  | APIC. | 15,555,350 |
| Statement of accum. comp. income: |  | Retained earnings | 28,756,800 |
| BOY cumulative translation adjustment | \$ (1,817,088) | Cumulative translation adjustment . | $(1,543,805)$ |
| Current-year translation gain (loss) | 273,283 |  | \$50,075,260 |
| EOY cumulative translation adjustment | \$ (1,543,805) |  |  |

Assume the following information: The purchase price for the subsidiary included an [A] asset relating to land that the parent estimated was worth $€ 384,000$ more than its book value on the subsidiary's balance sheet. Compute the balance of the Equity Investment account of $\$ 7,208,400$ on the parent's balance sheet.
d. Using your translated subsidiary financial statements from Part $a$ and the parent's financial data provided in Part c, prepare the consolidation spreadsheet for the year.


## 43. Translation of financial statements and consolidation of a foreign subsidiary (amortization of AAP)

Assume that your company owns a subsidiary operating in Brazil. The subsidiary maintains its books in the Brazilian real (BRL) as its functional currency. Following are the subsidiary's financial statements (in BRL) for the most recent year:

| (in BRL) | (in BRL) |  | (in BRL) |
| :---: | :---: | :---: | :---: |
| Income statement: | Balance sheet: | Statement of cash flows: |  |
| Sales. . . . . . . . . . . . . . . 4,200,000 | Assets | Net income | 588,000 |
| Cost of goods sold . . . . . . $(2,520,000)$ | Cash................... . . 1,195,320 | Change in accounts receivable. | $(162,400)$ |
| Gross profit. . . . . . . . . . . $\overline{\text { 1,680,000 }}$ | Accounts receivable . . . . . . 974,400 | Change in inventories. | $(208,600)$ |
| Operating expenses . . . . $(1,092,000)$ | Inventory. . . . . . . . . . . . . . . 1,251,600 | Change in current liabilities | 118,720 |
| Net income . . . . . . . . . . . 588,000 | 2,315,040 | Net cash from operating activities | 335,720 |
|  | Total assets. . . . . . . . . . . . 5,736,360 | Change in PPE, net | $(215,040)$ |
| Statement of retained earnings: BOY retained | Liabilities and stockholders' equity | Net cash from investing activities . | $(215,040)$ |
| earnings . . . . . . . . . . . . 2,205,000 | Current liabilities.......... $\quad 712,320$ |  |  |
| Net income . . . . . . . . . . . . . . ${ }^{\text {a }}$ 588,000 | Long-term liabilities . . . . . . $1,659,840$ | Change in long-term debt. Dividends . . . . . . . . . | $\begin{gathered} 276,640 \\ (58,800) \end{gathered}$ |
| Dividends . . . . . . . . . . . $\quad(58,800)$ | Common stock . . . . . . . . . . . . 280,000 <br> APIC . . . . . . . . . . . . . . . 350,000 | Net cash from financing activities. | 217,840 |
| $\begin{aligned} & \text { Ending retained } \\ & \text { earnings . . . . . . . . . } \end{aligned} \xlongequal{2,734,200}$ |  |  |  |
|  | Total liabilities and equity . . . 5,736,360 | Net change in cash. . . . . . . . . . . . . . . . 338,520 <br> Beginning cash. . . . . . . . . . . . . 856,800 |  |
|  |  |  |  |  |
|  |  | Ending cash | 1,195,320 |

We present a list of specific fund types in Exhibit 9.2 (GASB Cod. Sec. 1300.103-114). There is only one requirement relating to the establishment of funds: There should be only one General Fund (GASB Cod. Sec. 1300.116). Aside from that restriction, governments should establish and maintain those funds that are required by law and that are necessary for sound financial administration. Further, only the minimum number of funds consistent with legal and operating requirements should be established because unnecessary funds result in inflexibility, undue complexity, and inefficient financial administration.

## EXHIBIT 9.2 Types of Funds

1. Governmental Funds
a) General Fund-to account for all financial resources except those reported in another fund.
b) Special revenue funds-to account for the proceeds of specific revenue sources that are legally restricted to expenditures for specified purposes. Resources restricted to expenditures for purposes normally financed from the general fund may be accounted for through the general fund provided that applicable legal requirements can be appropriately satisfied, and use of special revenue funds is not required unless they are legally mandated. The general fund of a blended component unit should be reported as a special revenue fund.
c) Capital projects funds-to account for financial resources to be used for the acquisition or construction of major capital facilities (other than those financed by proprietary funds or in trust funds for individuals, private organizations, or other governments). Capital outlays financed from general obligation bond proceeds should be accounted for through a capital projects fund.
d) Debt service funds-to account for the accumulation of resources for, and the payment of, general longterm debt principal and interest. Debt service funds are required if they are legally mandated and/or if financial resources are being accumulated for principal and interest payments maturing in future years.
e) Permanent funds-should be used to report resources that are legally restricted to the extent that only earnings, and not principal, may be used for purposes that support the reporting government's programs-that is, for the benefit of the government or its citizenry.
2. Proprietary Funds
a) Enterprise funds-may be used to report any activity for which a fee is charged to external users for goods or services. These activities are typically those that are engaged in by businesses, and the objective is to charge fees to users that are sufficient to cover all of the costs incurred to provide the activity to its users. Activities are required to be reported as enterprise funds if any one of the following criteria is met.
i) The activity is financed with debt that is secured solely by a pledge of the net revenues from fees and charges of the activity. Debt that is secured by a pledge of net revenues from fees and charges and the full faith and credit of a related primary government or component unit-even if that government is not expected to make any payments-is not payable solely from fees and charges of the activity.
ii) Laws or regulations require that the activity's costs of providing services, including capital costs (such as depreciation or debt service), be recovered with fees and charges, rather than with taxes or similar revenues.
iii) The pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs (such as depreciation or debt service).
b) Internal service funds-may be used to report any activity that provides goods or services to other funds, departments, or agencies of the primary government and its component units, or to other governments, on a cost-reimbursement basis. Internal service funds should be used only if the reporting government is the predominant participant in the activity.
3. Fiduciary Funds
a) Pension (and other employee benefit) trust funds-should be used to report resources that are required to be held in trust for the members and beneficiaries of defined benefit pension plans, defined contribution plans, other post employment benefit plans, or other employee benefit plans.
b) Investment trust funds-should be used to report the external portion of investment pools reported by the sponsoring government.
c) Private-purpose trust funds-used to report escheat property and all other trust arrangements under which principal and income benefit individuals, private organizations, or other governments.
d) Custodial funds-should be used to report resources held by the reporting government in a purely custodial capacity (assets equal liabilities). Custodial Funds typically involve only the receipt, temporary investment, and remittance of fiduciary resources to individuals, private organizations, or other governments.

Source: GSDB Cod. Sec. 1300.103-114.

## Measurement Focus and Basis of Accounting for Governmental Funds

LO3 Describe the measurement focus and basis of accounting.

The financial statements for governmental funds are prepared using a different measurement focus and a different accounting basis than we use for the preparation of financial statements for a business, and the financial statements for proprietary funds and fiduciary funds. For governmental funds, we recognize revenues and expenditures using the current financial resources measurement focus and the modified accrual basis of accounting (GASB Cod. Sec. 1600.106):
11. Property taxes are an important source of revenue for local governments. Describe the revenue recognition principal related to property taxes.
12. Many local governments receive aid from the state and federal governments. This aid often contains conditions that must be met in order for the local government to use the funds. Describe the types of restrictions that may accompany aid from other governments and when that aid can be recognized as revenue.
13. Describe the revenue recognition criteria for proprietary and fiduciary funds.
14. Why do governments make a journal entry to record the budget?
15. What is an encumbrance? Why is the use of encumbrances important for the proper functioning of a government?
16. What is an expenditure?
17. Explain how managers of a government can use encumbrances to monitor expenditures in order to ensure that they have not exceeded their authorization for appropriations.
18. What are the four types of interfund activities?
19. What are the criteria to determine whether a fund should be separately reported as a major fund in the fund financial statements of a government?
20. What financial statements are required for governmental funds, proprietary funds, and fiduciary funds?

## Assignments with the logo in the margin are available in $\frac{\text { Business Course. }}{\text { Bu }}$. See the Preface of the book for details.

## MULTIPLE CHOICE

21. Budget entry amount

On January 1, Floyd City approved the following General Fund resources for the new fiscal period:

| Property taxes | \$4,000,000 |
| :---: | :---: |
| Licenses and permits | 100,000 |
| Intergovernmental revenues. | 250,000 |
| Transfers in from other funds | 150,000 |

What amount should Floyd record as estimated revenues for the new fiscal year?
a. $\$ 4,100,000$
b. $\$ 4,500,000$
c. $\$ 4,350,000$
d. $\$ 4,550,000$
22. Expenditure computation

A government makes a contribution to its pension plan in the amount of \$9,000 during the year. The actuarially-determined annual required contribution for the year was $\$ 13,500$. The pension plan paid benefits of $\$ 7,200$ and refunded employee contributions of $\$ 800$ during the year. What is the pension expenditure for the government's General Fund for the year?
a. $\$ 7,200$
b. $\$ 8,000$
c. $\$ 9,000$
d. $\$ 13,500$
24. Fund types

Which of the following funds would be reported as a fiduciary fund in Sullivan City's financial statements?
a. Private-purpose Trust
c. Special revenue
b. Permanent
d. Internal service

## 25. Fund types

Elkhart City Council will be establishing a library fund. Library fees are expected to cover $55 \%$ of the library's annual resource requirements. Elkhart has decided that an annual determination of net income is desirable in order to maintain management control and accountability over the library. What type of fund should Elkhart establish in order to meet their measurement objectives?
a. Special revenue fund
c. Enterprise fund
b. General fund
d. Internal service fund
26. Other financing uses

Menominee County's General Fund had the following transactions during the year:

| Transfer to a debt service fund | \$50,000 |
| :---: | :---: |
| Payment to a pension trust fund. | 500,000 |
| Purchase of equipment. | 300,000 |

What amount should Menominee County report for the General Fund as other financing uses in its governmental funds statement of revenues, expenditures, and changes in fund balances?
a. $\$ 50,000$
b. $\$ 300,000$
c. $\$ 800,000$
d. $\$ 850,000$

## 27. Property taxes

During the current year, Shelby County levied $\$ 3,000,000$ property taxes, $1 \%$ of which is expected to be uncollectible. During the year, the county collected $\$ 2,700,000$ and wrote off $\$ 15,000$ as uncollectible. Shelby County expects to collect the remaining amounts owed within 60 days of the close of its fiscal year. What amount should Shelby County report as property tax revenue in its statement of revenues, expenditures, and changes in fund balances for the current year?
a. $\$ 1,800,000$
b. $\$ 1,980,000$
c. $\$ 2,700,000$
d. $\$ 2,970,000$
28. Fund types

Kent County received a $\$ 4,500,000$ capital grant to be equally distributed among its five municipalities. The grant is to finance the construction of capital assets. Kent had no administrative or direct financial involvement in the construction. In which fund should Kent record the receipt of cash?
a. Agency fund
c. Special revenue fund
b. General fund
d. Private purpose trust fund
29. Setting accounting standards

Which organization is responsible for setting accounting standards for state and local governments?
a. FASAB
c. FASB
b. GFOA
d. GASB
30. Measurement focus and accrual basis of accounting

The economic resources measurement focus and the accrual basis of accounting are appropriate for which of the following funds?
a. Capital projects fund
c. Debt service fund
b. Internal service fund
d. Special revenue fund
31. Reporting objectives

Which of the following is not one of the GASB's reporting objectives?
a. Providing assurance that the governmental entity is solvent
b. Providing information to assess the governmental entity's financial position and results of operations
c. Providing information relating to variances from the approved budget
d. Provide information to assist in determining compliance with finance-related laws, rules, and regulations.
32. Current financial resources measurement focus and modified accrual basis of accounting use the modified accrual basis of accounting?

## 41. Reconciliations required to yield government-wide financial statements from fund financial statements and preparation of financial statements

The City of Tipton is preparing its government-wide financial statements for the year. Its accountant must prepare a number of journal entries to recognize assets and liabilities previously omitted from the fund financial statements and to recognize revenues and expenses for the year under accrual accounting that were not recognized under the current financial resources measurement focus and the modified accrual basis of accounting used to prepare the statement of revenues, expenditures, and changes in fund balances for its funds.
a. Prepare the journal entries for the required reconciliations to recognize the following in the government-wide financial statements (all amounts in $\$ 1,000 \mathrm{~s}$ ):

1. Recognize capital assets of $\$ 201,360$ as of the beginning of the year.
2. Record depreciation expense of $\$ 8,699$ for the year and reverse expenditures of $\$ 11,962$ for capital outlays during the year.
3. Recognize $\$ 10,000$ of bonds payable as of the beginning of the year.
4. Reverse other financing sources of $\$ 3,000$ and expenditures - debt payments of $\$ 700$ relating to increases and decreases in the bond liability during the year.
5. Reverse deferred revenue of $\$ 27,300$ as of the beginning of the year.
6. Reverse $\$ 1,365$ of deferred revenue recognized during the year.
7. Recognize compensated absences of $\$ 3,988$ as of the beginning of the year and an increase in that liability of $\$ 199$ during the year.
8. Recognize $\$ 40$ of accrued interest payable as of the beginning of the year and an increase in that liability of $\$ 50$ during the year.
9. Recognize a liability of $\$ 5,482$ relating to the City's landfill as of the beginning of the year. The estimate for this liability did not change during the year.
b. The City of Tipton reports the following summary fund financial statements for its Governmental Funds:

| Balance Sheet | Governmental Fund |
| :---: | :---: |
| Current: |  |
| Cash . | \$ 41,600 |
| Receivables: |  |
| Real estate and personal property | 2,520 |
| Intergovernmental. | 26,060 |
| Total assets . | \$ 70,180 |
| Payables | \$ 12,182 |
| Deferred revenues. | 28,665 |
| Total liabilities . | 40.847 |
| Fund balance-unassigned | 29,333 |
|  | \$ 70,180 |
| Statement of revenues, expenditures, and changes in fund balances: |  |
| Total revenues-fund financial statements. | \$110,384 |
| Total expenditures . . . . . . . . . . | 107,912 |
| Other financing sources and uses: |  |
| Proceeds from bonds | 3,000 |
| Net change in fund balances | \$ 5,472 |

Given these fund financial statements and the reconciliations in Part $a$, prepare the government-wide statement of net position and identify the revenues, expenses, and change in net position that should be reported in the statement of activities for the year.
42. Reconciliations required to yield government-wide financial statements from fund financial statements and preparation of financial statements
The City of Knox is preparing its government-wide financial statements for the year. Its accountant must prepare a number of journal entries to recognize assets and liabilities previously omitted from the fund financial statements and to recognize revenues and expenses for the year under accrual accounting that were not recognized under the current financial resources measurement focus and the modified


[^0]:    ${ }^{32}$ Adapted from ASC 815-25-55-36
    ${ }^{33}$ Adapted from ASC 815-25-55-38

[^1]:    ${ }^{34}$ Adapted from ASC 815-30-55-20 to -22

