

Assume the investor will account for this investment using the fair value method and that the fair value of the shares owned has increased to \$25,000 at the next reporting period. The investor will treat the investment as though it has a cost of \$20,000 and a fair value of \$25,000, and the required journal entry to record the increase in fair value is as follows:

Equity investment . . . . .	5,000	
Net unrealized holding gains and losses <del>OCI</del> . . . . .		5,000
<i>(to record the increase in fair value of the equity security)</i>		

## TOPIC REVIEW 1.6



### Reporting a Change to the Equity Method

Assume an investor company acquires for \$1,500 a 5% investment in the common stock of an investee company on February 15, 2018. The investor determined the common stock of the investee has a readily determinable fair value. On December 31, 2018, the fair value of the 5% common stock investment is \$1,800, and the investor company made all of the appropriate adjustments in preparation of the annual financial statements. On March 1, 2019, the investor company acquires an additional 20% of common stock of the investee for \$7,600, thereby increasing the investor's overall ownership interest to 25%.

#### Required

- Prepare the journal entries the investor company should record on March 1, 2019.
- For this question only, assume instead that the investor determined, on February 15, 2018, that the common stock of the investee does not have a readily determinable fair value. In addition, the investor company determined that the additional 20% common stock purchase on March 1, 2019 does qualify as an observable price change in orderly transaction. Prepare the journal entries the investor company should record on March 1, 2019.
- For this question only, assume instead that the investor determined, on February 15, 2018, that the common stock of the investee does not have a readily determinable fair value. In addition, the investor company determined that the additional 20% common stock purchase on March 1, 2019 does not qualify as an observable price change in orderly transaction. Prepare the journal entries the investor company should record on March 1, 2019.

The solution to this review problem can be found on page 41.



## Required Disclosures for Equity Method Investments

FASB ASC 323-10-50 identifies required disclosures relating to investments accounted for under the equity method:


- The name of each investee and percentage of ownership of common stock, the accounting policies of the investor with respect to investments in common stock, and the difference, if any, between the amount at which an investment is carried and the amount of underlying equity in net assets and the accounting treatment of the difference.
- For those investments in common stock for which a quoted market price is available, the aggregate value of each identified investment based on the quoted market price usually should be disclosed. This disclosure is not required for investments in common stock of subsidiaries.
- When investments in common stock of corporate joint ventures or other investments accounted for under the equity method are, in the aggregate, material in relation to the financial position or results of operations of an investor, it may be necessary for summarized information as to assets, liabilities, and results of operations of the investees to be presented in the notes or in separate statements, either individually or in groups, as appropriate.
- Conversion of outstanding convertible securities, exercise of outstanding options and warrants and other contingent issuances of an investee may have a significant effect on an investor's share of reported earnings or losses. Accordingly, material effects of possible conversions, exercises or contingent issuances should be disclosed in notes to the financial statements of an investor.

**LO 8** Explain the required disclosures for equity method investments.



7. Consider the following scenario: an investor owns 10% of an investee company with publicly traded stock, and licenses technology to the investee for the production of its sole product. None of the investor's employees serve in the management of the investee company, nor sit on its board of directors. The license agreement prohibits the investee from certain business activities, such as entering into business arrangements with other companies without the investor's consent, using the technology to develop products except as authorized by the investor, and expanding the business into new lines of business without the investor's approval. How should the investor account for its investment in the investee company?
8. Consider the following scenario: an investor owns 30% of an investee company. The remaining 70% is owned by the investee's founder who has managed the company since its inception and takes no direction from "outsiders." How should the investor account for its investment?
9. FASB ASC 323-10-35-19 through -22 provides the following: "An investor's share of losses of an investee may equal or exceed the carrying amount of an investment accounted for by the equity method plus advances made by the investor. The investor ordinarily should discontinue applying the equity method when the investment (and net advances) is reduced to zero and should not provide for additional losses unless the investor has guaranteed obligations of the investee or is otherwise committed to provide further financial support for the investee. If the investee subsequently reports net income, the investor should resume applying the equity method only after its share of that net income equals the share of net losses not recognized during the period the equity method was suspended."
  - a. **Enron**, the infamous energy company that failed in the early 2000s, disclosed that it invested in companies that reported substantial losses and were technically insolvent (i.e., deficit Stockholders' Equity). Enron used the equity method to account for these investments, had not made any advances to them, and did not guarantee their debts. How did the losses by its investee companies affect Enron's income statement?
  - b. What is meant by this phrase in FASB ASC 323-10-35-22: "only after its share of that net income equals the share of net losses not recognized during the period the equity method was suspended"?
10. What disclosures are required for equity method investments under FASB ASC 323?

**FASB ASC  
Research**

Assignments with the  logo in the margin are available in **my BusinessCourse**.  
See the Preface of the book for details.

## MULTIPLE CHOICE

### 11. Accounting for noncontrolling equity investment

**LO1, 2**

An investor company acquired 20% of an investee company's voting common stock. The investee's common stock has a readily determinable fair value. The investor has representation on the investee's board of directors, participates in the investee's policy making process and has material business transactions with the investee. Which of the following alternatives best describes the investor's required accounting for its interest in the investee?

- a. Because the investee's stock has a readily determinable fair value, the investor must use fair value method to account for its interest in the investee's common stock.
- b. The investor should recognize as income the dividends it receives from the investee.
- c. The investor must use the cost-based approach to account for its interest in the investee's common stock.
- d. **The investor** should recognize as income a proportionate share of the net income recognized by the investee.

### 12. Indicators for significant influence over equity investee

**LO1**

Which of the following factors is an indicator that an investor company has significant influence over an investee company?

- a. The investor and investee sign an agreement under which the investor surrenders significant rights.
- b. The investee has technological dependency on the investor.
- c. Majority ownership of the investee is concentrated among a small group of shareholders who operate the investee without regard to the views of the investor.
- d. The investor tries and fails to obtain representation on the investee's board of directors.





**LO2 13. Equity method of accounting**

An investor company uses the equity method to account for its investment in 25% of the outstanding common stock of an investee company. How should cash dividends received from the investee affect the financial statements of the investor?

- A decrease in the Equity Investment account
- A decrease in retained earnings
- Dividend income
- An increase in the Equity Investment account

**LO2, 5 14. Equity method of accounting**

On January 1, 2018, an investor company acquired 30% of an investee company's common stock for \$600,000. As a result of this transaction, the investor can exert significant influence over the investee. During each year ended December 31, 2018 and 2019 the investee reported \$120,000 of net income and \$50,000 of dividends. On January 1, 2018, the book value of the investee's net assets was \$2,000,000 and all individual net assets had appraised fair values that equaled their reported book values. On December 31, 2019, what is the balance of the Equity Investment account on the Investor's balance sheet?

- \$740,000
- \$642,000
- \$621,000
- \$600,000

Use the following facts for Multiple Choice problems 15 and 16 (each question is independent of the other):

On January 1, 2019, an investor purchases 18,000 common shares of an investee at \$12 (cash) per share. The shares represent 20% ownership in the investee. The investee's common stock has a readily determinable fair value. On January 1, 2019, the book value of the investee's assets and liabilities equals \$1,230,000 and \$150,000, respectively. On that date, the appraised fair values of the investee's identifiable net assets approximated the recorded book values. During the year ended December 31, 2019, the investee company reported net income equal to \$50,000 and dividends equal to \$15,000. On December 31, 2019, the fair value of the investee's stock is \$16 per share.

**LO2, 5 15. Noncontrolling investment accounting (price equals book value)**

Assume the investor cannot exert significant influence over the investee. Determine the balance in the "Investment in Investee" account at December 31, 2019.

- \$216,000
- \$223,000
- \$288,000
- \$295,000

**LO2, 5 16. Noncontrolling investment accounting (price equals book value)**

Assume the investor can exert significant influence over the investee. Determine the balance in the "Investment in Investee" account at December 31, 2019.

- \$216,000
- \$223,000
- \$288,000
- \$295,000

Use the following facts for Multiple Choice problems 17 and 18 (each question is independent of the other):

On January 1, 2019, an investor purchases 32,000 common shares of an investee at \$11 (cash) per share. The shares represent 24% ownership in the investee. The investee's common stock does not have a readily determinable fair value. On January 1, 2019, the book value of the investee's assets and liabilities equals \$1,700,000 and \$600,000, respectively. On that date, the appraised fair values of the investee's identifiable net assets approximated the recorded book values, except for a customer list. On January 1, 2019, the customer list had a recorded book value of \$0, an estimated fair value equal to \$90,000 and a 5 year remaining useful life. During the year ended December 31, 2019, the investee company reported net income equal to \$120,000 and dividends equal to \$40,000. ~~On December 31, 2019, the fair value of the investee's stock is \$15 per share.~~



## COMPREHENSIVE REVIEW SOLUTION

a.	Equity investment . . . . .	10,000	
	Unrealized holding gain . . . . . <i>(to increase the existing 10% holding of investee stock to fair value pursuant to transaction to gain significant influence in investee—the fair value of the existing 10% investment can be inferred from the price paid for the 25% interest—<math>\\$250,000/25\% = \\$1,000,000</math>, and <math>10\% = \\$100,000</math>. The carrying value prior to revaluation was <math>\\$90,000</math>.)</i>		10,000
	Equity investment . . . . .	250,000	
	Cash . . . . . <i>(to record the purchase of an additional 25% interest in the common stock of the investee to bring the total holdings to 35%)</i>		250,000
b.	Equity investment . . . . .	70,000	
	Equity income . . . . . <i>(to record equity income of \$70,000 representing 35% of the investee's net income of \$200,000)</i>		70,000
c.	Cash . . . . .	31,500	
	Equity investment . . . . . <i>(to record the receipt of a \$31,500 (<math>\\$90,000 \times 35\%</math>) dividend from the investee)</i>		31,500
d.	Equity income . . . . .	17,500	
	Equity investment . . . . . <i>(to record the amortization of the Patent asset of \$17,500 (<math>[\\$500,000/10] \times 35\%</math>))</i>		17,500
e.	Equity income . . . . .	6,300	
	Equity investment . . . . . <i>(to record the deferral of 60% of the gross profit on inventory sale in the period of sale when the investor owns 35% of the investee <math>(\\$80,000 - \\$50,000) \times 60\% \times 35\% = \\$6,300</math>)</i>		6,300



**LO1 27. Acquiring net assets that constitute a business**

Assume the net assets transferred from the investee qualify as a “business,” as that term is defined in FASB ASC Master Glossary. At what amount will Goodwill be reported in the financial statements of the acquiring company on January 1, 2019?

- \$ 0
- \$ 20
- \$ 60
- \$180

**Use the following facts for Multiple Choice problems 28 and 29:**

Assume on January 1, 2019, the investor company issued 10,000 new shares of the investor company’s common stock in exchange for all of the individually identifiable assets and liabilities of the investee company. The investee company qualifies as a business. Fair value approximates book value for all of the investee’s identifiable net assets. The transaction resulted in no goodwill or bargain purchase gain. The following financial statement information is for an investor company and an investee company on January 1, 2019, prepared immediately before this transaction.

	Book Values	
	Investor	Investee
Receivables & inventories . . . . .	\$160,000	\$ 80,000
Land . . . . .	320,000	160,000
Property & equipment . . . . .	360,000	160,000
Total assets. . . . .	<u>\$840,000</u>	<u>\$400,000</u>
Liabilities. . . . .	\$240,000	\$120,000
Common stock (\$1 par) . . . . .	32,000	16,000
Additional paid-in capital. . . . .	440,000	194,000
Retained earnings . . . . .	128,000	70,000
Total liabilities & equity . . . . .	<u>\$840,000</u>	<u>\$400,000</u>
Net assets. . . . .	<u>\$600,000</u>	<u>\$280,000</u>

**LO1 28. Asset acquisition (fair value equals book value)**

What is the per share fair value of the investor’s common stock?

- \$84/share
- \$60/share
- \$40/share
- \$28/share

**LO1 29. Asset acquisition (fair value equals book value)**

Provide the investor company’s balance (i.e., on the investor’s books, before consolidation) for an “Investment in Investee” account immediately following the acquisition of the investee’s net assets:

- \$0
- \$280,000
- \$600,000
- \$840,000

**Use the following facts for Multiple Choice problems 30 and 31 (each question is independent of the other):**

The following financial statement information is for an investor company and an investee company on January 1, 2019. On January 1, 2019, the investor company’s common stock had a traded market value of \$27 per share, and the investee company’s common stock had a traded market value of \$20 per share.





LO4


**62. Consolidation at date of acquisition (purchase price greater than book value, acquisition journal entries)**

Assume the parent company acquires its subsidiary by exchanging 50,000 shares of its \$1 par value Common Stock, with a fair value on the acquisition date of \$30 per share, for all of the outstanding voting shares of the investee. In its analysis of the investee company, the parent values all of the subsidiary's assets and liabilities at an amount equaling their book values except for an unrecorded Trademark with a fair value of \$120,000, an unrecorded Video Library valued at \$300,000, and Patented Technology with a fair value of \$60,000.

- Prepare the journal entry that the parent makes to record the acquisition.
- Given the following acquisition-date balance sheets of the parent and the subsidiary, prepare the consolidation entries.

Balance Sheet	Parent	Subsidiary
<b>Assets</b>		
Cash .....	\$ 250,000	\$ 120,000
Accounts receivable .....	200,000	300,000
Inventory .....	300,000	400,000
Equity investment .....	1,500,000	
Property, plant and equipment (PPE), net .....	4,000,000	800,000
	<u>\$6,250,000</u>	<u>\$1,620,000</u>
<b>Liabilities and stockholders' equity</b>		
Accounts payable .....	\$ 200,000	\$ 80,000
Accrued liabilities .....	250,000	140,000
Long-term liabilities .....	1,800,000	500,000
Common stock .....	400,000	100,000
APIC .....	2,600,000	200,000
Retained earnings .....	1,000,000	600,000
	<u>\$6,250,000</u>	<u>\$1,620,000</u>

- Prepare the consolidation spreadsheet.
- Where were the intangible assets on the parent or subsidiary's balance sheets?

LO4, 6


**63.<sup>B</sup> Consolidation at date of acquisition (purchase price greater than book value, acquisition journal entries, deferred tax liability)**

Assume the parent company acquires its subsidiary in a "nontaxable" transaction by exchanging 60,000 shares of its \$2 par value Common Stock, with a fair value on the acquisition date of \$25 per share, for all of the outstanding voting shares of the investee. In its analysis of the investee company, the fair value of each of the subsidiary's assets and liabilities equals their respective book values except for Property, Plant and Equipment (PPE) assets that are undervalued by \$100,000, an unrecorded Customer List with a fair value of \$160,000, and an unrecorded Brand Name asset valued at \$240,000. And, finally, assume the tax bases of the subsidiary's pre-acquisition identifiable net assets equal their book values. The parent company's effective tax rate is 20%.

- Prepare the journal entry that the parent makes to record the acquisition.
- Given the following acquisition-date balance sheets for the parent and its subsidiary, prepare the consolidation spreadsheet.





Balance Sheet	Parent	Subsidiary
<b>Assets</b>		
Cash . . . . .	\$ 200,000	\$ 80,000
Accounts receivable . . . . .	300,000	120,000
Inventory . . . . .	700,000	600,000
Equity investment . . . . .	1,500,000	—
Property, plant and equipment (PPE), net . . . . .	<u>3,000,000</u>	<u>1,000,000</u>
	<u>\$5,700,000</u>	<u>\$1,800,000</u>
<b>Liabilities and stockholders' equity</b>		
Accounts payable . . . . .	\$ 150,000	\$ 120,000
Accrued liabilities . . . . .	250,000	200,000
Long-term liabilities . . . . .	1,600,000	600,000
Common stock . . . . .	500,000	80,000
APIC . . . . .	<u>2,000,000</u>	<u>200,000</u>
Retained earnings . . . . .	<u>1,200,000</u>	<u>600,000</u>
	<u>\$5,700,000</u>	<u>\$1,800,000</u>

#### 64. Interpreting Acquisition Footnote with In-Process Research and Development

LO5

On October 3, 2017, Gilead Sciences, Inc. (Gilead) acquired 100% of the outstanding common stock of Kite Pharma, Inc. (Kite). According to Gilead's December 31, 2017 Securities and Exchange Commission Form 10-K, "[t]he acquisition of Kite was accounted for as a business combination using the acquisition method of accounting." The following excerpt is from Note 5 (i.e., Acquisitions) of Gilead's 2017 10-K:

The following table summarizes the preliminary acquisition date fair values of assets acquired and liabilities assumed, and the consideration transferred (in millions):

Cash and cash equivalents . . . . .	\$ 652
Identifiable intangible assets	
Indefinite-lived intangible assets—IPR&D . . . . .	8,950
Outlicense acquired . . . . .	91
Deferred income taxes . . . . .	(1,606)
Other assets acquired (liabilities assumed), net. . . . .	<u>81</u>
Total identifiable net assets. . . . .	8,168
Goodwill . . . . .	<u>2,987</u>
Total consideration transferred . . . . .	<u>\$11,155</u>

- What did Gilead need to demonstrate for the Kite acquisition to qualify as a business combination? (In answering this question, ignore the information in part *d* of this problem.)
- Given the individual identifiable net assets acquired, describe why business combination accounting might seem unusual for the Kite acquisition. (In answering this question, ignore the information in part *d* of this problem.)
- For this question only, assume the Kite acquisition qualified as an asset acquisition that is not a business combination. How would the accounting for the acquisition of Kite's net assets differ?
- According to Gilead's 2017 10-K, in October 2017, after the acquisition date of Kite, the "FDA approv[ed] Yescarta for the treatment of adult patients with relapsed or refractory DLBCL after two or more lines of systemic therapy." (This technology was technically considered unproven and presented as part of in-process research and development at the balance acquisition date.) The footnote states that the fair value of the technology for this proven Yescarta therapy is \$6,200 million. If this technology was proven and patented, how will the above-presented information in the acquisition footnote change in the December 31, 2017 financial statements of Gilead?



*continued from previous page*

	Year Ended December 31,	
	2014	2013
Revenue from Consolidated Statements of Operations . . . . .	\$1,786.4	\$1,090.9
Add: Bally revenue not reflected in Consolidated Statements of Operations . . . . .	<u>1,159.5</u>	<u>1,358.6</u>
Unaudited pro forma revenue. . . . .	<u>\$2,945.9</u>	<u>\$2,449.5</u>

	Year Ended December 31,	
	2014	2013
Net loss from continuing operations from Consolidated Statements of Operations . . . . .	\$(234.3)	\$ (25.6)
Add: Bally net loss from continuing operations not reflected in Consolidated Statements of Operations plus pro forma adjustments . . . . .	<u>(195.4)</u>	<u>(349.1)</u>
Unaudited pro forma net loss from continuing operations . . . . .	<u>\$(429.7)</u>	<u>\$(374.7)</u>

## TOPIC REVIEW

### Solution 1

Summary of Consideration:	Asset Acquisition	Business Combination
Payment to Investee for net assets . . . . .	\$580	\$580
Transaction costs . . . . .	10	
Contingent Consideration (FV) . . . . .		40
Total consideration . . . . .	<u>\$590</u>	<u>\$620</u>

	Investee Fair Value	FV%	Allocated Cost
Plant and equipment. . . . .	\$120	20.0%	\$118
Land . . . . .	180	30.0%	177
Patent . . . . .	300	50.0%	295
Total . . . . .	<u>\$600</u>	<u>100.0%</u>	<u>\$590</u>

a.	Plant and equipment. . . . .	118
	Land . . . . .	177
	Patent. . . . .	295

Cash . . . . .	210
Common stock (76 shares @ \$1 par value) . . . . .	76
Additional paid-in capital . . . . .	304
<i>(to record the acquisition of another company's net assets that do not qualify as a "business")</i>	



## Upstream versus Downstream Transactions for Wholly Owned (i.e., 100%) Subsidiaries—Equity Method

The preceding example provides an illustration of the consolidation entries for a downstream intercompany inventory transaction. Interestingly, in the case of wholly owned subsidiaries, there is no difference in [I] consolidating entries for upstream versus downstream transactions. This is because all deferred profit must be removed from the combined financial statements, regardless of the direction of the transaction.<sup>10</sup>

If we consider the accounts affected and the amounts in the preceding example, all consolidating entries in Exhibit 4.5 and the account relationships and balances in Exhibit 4.6 are the same in the upstream case, except deferred profit will offset the regular equity method income recognized by the parent company. In our stylized example, because all of the sales by the subsidiary are intercompany sales, there is no need for consolidating entry [C] in either year. That's because, under the equity method of pre-consolidation Investment bookkeeping, the parent company would have made the following journal entries in the first year to record the parent's share of the subsidiary's income and to remove the deferred intercompany profits:<sup>11</sup>

Equity investment	30	
Income (loss) from subsidiary		30
<i>(to record the equity method adjustment for income recognized by the subsidiary)</i>		
Income (loss) from subsidiary	30	
Equity investment		30
<i>(to eliminate deferred intercompany profit from income and Equity Investment account in year of intercompany sale)</i>		

Thus, in the case of upstream sales, the equity method of accounting causes the parent's Equity-Investment-related accounts to reflect only transactions that involve unaffiliated entities.

## How Much Gross Profit Do We Defer?

In our examples thus far, we have assumed that *none* of the inventories were resold in the initial period of intercompany sale. As a result, all of the profit on the intercompany sale (\$30 in Exhibit 4.2) is deferred in the initial period of intercompany sale. In practice, some of the inventories will be resold by the buyer in the same period as the intercompany sale.

For those inventories that have been sold, it is completely appropriate to recognize the gross profit on the intercompany sale as those inventories have been sold to a buyer outside of the group of affiliated companies. Consequently, we need only defer the gross profit on the inventories that have *not* been resold during the period. The amount of profit to be deferred, then, is equal to the dollar amount of the gross profit on the intercompany sale multiplied by the percentage of inventories that are unsold at the end of the period:

$$\text{\$ Profit to defer} = \text{\$ Total deferred profit} \times \% \text{ Unsold inventories}$$

For our previous numerical example, the parent sold to the subsidiary for \$130 inventories that cost the parent \$100. Assuming, as we did in our example, that all of those inventories remain unsold at December 31, 2018, we defer the full \$30 of gross profit for the year ending December 31, 2018.

If we, instead, assume 75% of those inventories were resold outside of the consolidated group at December 31, 2018, we need to defer only 25% of the deferred profit at December 31, 2018:

$$\text{\$7.50 of gross profit to defer} = \text{\$30 gross profit} \times 25\% \text{ of unsold inventories}$$

<sup>10</sup> This statement is also true for a sale of inventory from one subsidiary to another subsidiary. These transactions among commonly controlled subsidiaries are also considered "upstream."

<sup>11</sup> Recall that we made some fairly big simplifying assumptions in this example. In particular, we assumed that there were no other transactions or balances, except for the inventory-related items. Thus, the subsidiary's only income would have been derived from the upstream sale. In typical consolidations, where the subsidiary also makes sales to unaffiliated parties, the [C] entry would eliminate all subsidiary net income resulting from sales to unaffiliated parties.



continued from previous page

December 31, 2019	Parent	Subsidiary	Consolidation Entries		Consolidated
			Dr	Cr	
Liabilities and stockholders' equity					
Accounts payable . . . . .	\$ 388,000	\$ 270,000	[I <sub>pay</sub> ] 100,000		\$ 558,000
Other current liabilities . . . . .	49,000	230,000			279,000
Long-term liabilities. . . . .	312,000	200,000			512,000
Common stock . . . . .	1,665,000	100,000	[E] 100,000		1,665,000
APIC . . . . .	1,275,000	125,000	[E] 125,000		1,275,000
Retained earnings . . . . .	1,463,000	405,000			1,463,000
	<u>\$ 5,152,000</u>	<u>\$1,330,000</u>	<u>\$1,275,000</u>	<u>\$1,275,000</u>	<u>\$ 5,752,000</u>

Our consolidation entries are as follows:

[C]	Income (loss) from subsidiary . . . . .	180,500		Eliminate the changes in the parent's accounts caused by (equity method) investment accounting during 2019
	Dividends . . . . .	20,000		
	Equity investment . . . . .	160,500		
[E]	Common stock (S) @ BOY . . . . .	100,000	450,000	Eliminate the BOY stockholders' equity of subsidiary:
	APIC (S) @ BOY . . . . .	125,000		BOY ret. earn. . . . . \$225,000
	Retained earnings (S) @ BOY . . . . .	225,000		Common stock . . . . . 100,000
	Equity investment @ BOY . . . . .			APIC . . . . . 125,000
				Total . . . . . <u>\$450,000</u>
[A]	Building, net @ BOY . . . . .	90,000	90,000	Assign the remaining Equity Investment account (i.e., unamortized BOY AAP) to building
	Equity investment @ BOY . . . . .			
[D]	Operating expenses . . . . .	9,000	9,000	Recognize current-year amortization of the AAP related to the building
	Building, net . . . . .			
[I <sub>cogs</sub> ]	Equity investment @ BOY . . . . .	17,500	17,500	Increases Equity Investment account and recognizes prior period deferred profit from inventories in current period—for explanation, see footnote 9 on page 210.
	Cost of goods sold . . . . .			
[I <sub>sales</sub> ]	Sales . . . . .	400,000	400,000	Eliminates current period intercompany sales and cost of goods sold
	Cost of goods sold . . . . .			
[I <sub>cogs</sub> ]	Cost of goods sold . . . . .	28,000	28,000	Defer current period deferred profit on intercompany sale of inventories
	Inventory . . . . .			
[I <sub>pay</sub> ]	Accounts payable . . . . .	100,000	100,000	Eliminates intercompany receivable and payable
	Accounts receivable . . . . .			



## TOPIC REVIEW 4.1

### Accounting for the Intercompany Sale of Inventory—Equity Method

Assume a parent company acquired its subsidiary on January 1, 2016, with an acquisition-date Acquisition Accounting Premium (AAP) equal to \$437,500. The acquisition-date AAP was assigned to PPE assets (\$172,500, depreciated at \$7,500 per year), a Patent (\$65,000, amortized at \$5,000 per year), and Goodwill (\$200,000). During the year ended December 31, 2019, the subsidiary sold \$100,000 of inventory (on account) to its parent, all of which was unpaid at December 31, 2019. Deferred profit at December 31, 2018, equaled \$18,525, with all of these inventories sold to unaffiliated companies in 2019. Deferred profit at December 31, 2019, equals \$28,500. The parent uses the equity method to account for its Equity Investment. The parent and subsidiary financial statements for the year ended December 31, 2019, follow:

continued



**Upstream Intercompany Sale of Non-Depreciable Assets** The preceding example provides an illustration of the consolidation entries for a downstream intercompany non-depreciable asset sale transaction. We now consider the upstream case. Let's consider the same basic facts as our preceding downstream intercompany sale of land, but now assume, instead, the subsidiary sells to its parent for \$100 in cash, land that originally cost \$80 (i.e., it is now *upstream*). The journal entries recording the actual transaction are the same as before, but now on the opposite company's books. Based on those transactions, the equity method adjustments during 2017 are as follows:

Equity investment .....	20	
Income (loss) from subsidiary .....		20
<i>(to record the equity method adjustment for income recognized by the subsidiary)</i>		

Income (loss) from subsidiary .....	20	
Equity investment .....		20
<i>(to eliminate deferred intercompany profit from Income (loss) from subsidiary and Equity Investment accounts in year of upstream sale of land)</i>		

The first entry records the parent's equity income interest in the \$20 income recognized by the subsidiary. Because the equity method does not allow recognition of profits and losses on intercompany transactions, the second entry adjusts the Equity-Investment-related accounts to defer the gains on the intercompany sale of land.

Turning to the consolidation process, because there is no equity method income (loss) from the subsidiary, there is no need for a [C] consolidation entry. In entry [I<sub>gain</sub>] we defer the gain on the sale and reduce the book value of the land to its pre-sale balance, as follows:

Intercompany elimination entry in the year of sale	[I <sub>gain</sub> ]	Gain on sale .....	20	
		Land .....		20
		<i>(to defer the gain on sale and to restate the Land account to its pre-sale reported amount)</i>		



Exhibit 4.17A provides the resulting pre-consolidation financial statements for the parent and the subsidiary, along with the consolidating entries and consolidated balances through December 31, 2017.

Exhibit 4.17A	Excerpts of Land-Transaction-Affected Accounts in Consolidation Spreadsheet in the Initial Period of Upstream Intercompany Sale of Land (i.e., 2017)—Equity Method				
	Parent	Subsidiary	Consolidation Entries		Consolidated
			Debits	Credits	
<b>Income statement (excerpt):</b>					
Gain on sale of land	\$ 0	\$ 20	[I <sub>gain</sub> ] 20		\$ 0
Income (loss) from subsidiary	0				0
Net effect on total profits	\$ 0	\$ 20	20	0	\$ 0
<b>Retained earnings statement (excerpt):</b>					
Beginning retained earnings	\$ 0	\$ 0			\$ 0
<b>Balance sheet (excerpt):</b>					
Land	\$100	\$ 0		[I <sub>gain</sub> ] 20	\$ 80
Equity investment	0	0			0
Ending retained earnings	\$ 0	\$ 20	(NI) 20	0	\$ 0

Similar to the downstream case, the consolidated financial statements in the year of the intercompany land sale will only reflect the land balance at its original (i.e., pre-intercompany sale) cost: \$80. This is because all deferred profit must be removed from the combined financial statements, regardless of the direction of the transaction.<sup>18</sup>

An important difference to note in the upstream case as it contrasts with the downstream case: in the upstream case, the intercompany gain is recognized in the income statement of the subsidiary and is closed to the subsidiary's retained earnings at the end of the year. This means, in the upstream case, the intercompany gain will be in the pre-consolidation beginning retained earnings of the subsidiary—and unconfirmed—every year until the land is transferred to an unconsolidated entity (i.e., until the intercompany gain is confirmed).

<sup>18</sup> This statement is also true for an “upstream” sale of non-depreciable assets from one subsidiary to another subsidiary.



We, again, assume the land transferred between the affiliated companies is subsequently sold for \$150 to an unaffiliated (i.e., independent) company on September 15, 2019. Therefore, the deferred profit from the 2017 intercompany transaction will be deferred until the unaffiliated transaction takes place in 2019. Although no transaction involving the land takes place in 2018, the effects of 2017 deferred profit-related consolidation entries *must be carried forward* to the consolidated financial statements in 2018. Specifically, in 2018, the Land recorded on parent's pre-consolidation books will still be carried at \$100 and the \$20 Gain on Sale of Land recognized by the subsidiary in 2017 will still be in the subsidiary's beginning retained earnings.

Given the lack of activity during 2018, no equity-method-related journal entries are recorded in the parent company's pre-consolidation financial statements. However, as is illustrated in the pre-consolidation financial statement excerpts in Exhibit 4.17B, the subsidiary's retained earnings and the parent's land account both include the intercompany gain recognized in 2017. Thus, we will need to proposed consolidation entries in the preparation of the consolidated financial statements.

Because the intercompany gain is included in the equity (book value) accounts of the subsidiary, we will propose an [E] consolidating entry to eliminate it. However, as part of the [E] adjustment, we will credit the investment account for \$20. Thus, we will propose the [I<sub>gain</sub>] consolidating entry to remove the intercompany gain from both the equity investment account and from the land account. These consolidating entries follow:

Eliminates beginning stockholders equity of the subsidiary against the investment account	[E]	Retained earnings - BOY	20	
		Equity investment - BOY (to remove subsidiary's beginning balance of stockholders equity)		20

Intercompany elimination entry in the years after intercompany sale	[I <sub>gain</sub> ]	Equity investment —BOY	20	
		Land. .... (to defer the gain on sale and to restate the Land account to its pre-sale reported amount)		20



Exhibit 4.17B provides the resulting pre-consolidation financial statements for the parent and the subsidiary, along with the consolidating entries and consolidated balances through December 31, 2018.

Exhibit 4.17B	Excerpts of Land-Transaction-Affected Accounts in Consolidation Spreadsheet in Interim Period after Upstream Intercompany Sale of Land (i.e., 2018)—Equity Method					
		Consolidation Entries				
	Parent	Subsidiary	Debits	Credits	Consolidated	
Income statement (excerpt):						
Gain on sale of land	\$ 0	\$ 0			\$ 0	
Income (loss) from subsidiary	0				0	
Net effect on total profits	\$ 0	\$ 0	0	0	\$ 0	
Retained earnings statement (excerpt):						
Beginning retained earnings	\$ 0	\$ 20	[E] 20		\$ 0	
Balance sheet (excerpt):						
Land	\$100	\$ 0		[I <sub>gain</sub> ] 20	\$ 80	
Equity investment	0	0	[I <sub>gain</sub> ] 20	[E] 20	0	
Ending retained earnings	\$ 0	\$ 20	(RE) 20	0	\$ 0	

Note, in the periods between the year of the intercompany transaction and the year of the sale to an unaffiliated party, the end result of our consolidation procedures is to reflect the land balance at its original (i.e., pre-intercompany transfer) cost: \$80.

Turning to 2019 (i.e., the year of the transaction with an unaffiliated party), the entire gain from both land transactions (i.e., the intercompany transaction and the independent transaction) will be recognized in the consolidated income statement. This means the deferred profit of \$20 and the 2019 gain of \$50 recognized by the parent will be combined for a \$70 gain recognized in the consolidated income statement. This is the same as taking the 2019 sales price (i.e., \$150) and subtracting the original cost of the Land (i.e., \$80); that is, it is like we are assuming the intercompany sale never took place.

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

Equity investment .....	20	
Income (loss) from subsidiary .....		20
<i>(to recognize the deferred intercompany profit when the land is sold to an unaffiliated entity)</i>		



As noted in the parent's pre-consolidation income statement balances in Exhibit 4.17C, this brings the parent's total pre-consolidation income for 2019 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:

Consolidation entries to eliminate changes in the Equity Investment account during the year	[C]	Income (loss) from subsidiary . . . . .	20	
		Equity investment . . . . . (consolidation entry to eliminate changes caused by equity method accounting)		20
Eliminates beginning stockholders' equity of the subsidiary against the investment account	[E]	Retained earnings - BOY	20	
		Equity investment - BOY (to remove subsidiary's beginning balance of stockholders equity)		20
Intercompany elimination entry in the year of sale to unaffiliated party	[I <sub>gain</sub> ]	Equity investment . . . . .	20	
		Gain on sale of land . . . . . (to recognize deferred gain in year of sale to unaffiliated party)		20

The actual transactions, the parent's equity method accounting and the consolidating entries lead to the consolidated balances shown in Exhibit 4.17C:

Exhibit 4.17C	Excerpts of Land-Transaction-Affected Accounts in Consolidation Spreadsheet in the Period in Which the Upstream Land Holding Is Sold to an Unaffiliated Party (i.e., 2019)—Equity Method				
	Parent	Subsidiary	Consolidation Entries		Consolidated
			Debits	Credits	
Income statement (excerpt):					
Gain on sale of land	\$ 50	\$ 0		[I <sub>gain</sub> ] 20	\$ 70
Income (loss) from subsidiary	20		[C] 20		0
Net effect on total profits	\$ 70	\$ 0	0	20	\$ 70
Retained earnings statement (excerpt):					
Beginning retained earnings	\$ 0	\$ 20	[E] 20		\$ 0
Balance sheet (excerpt):					
Land	\$ 0	\$ 0			\$ 0
				[C] 20	
Equity investment	20	0	[I <sub>gain</sub> ] 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 4.17C) 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.



~~**Upstream Intercompany Sale of Non-Depreciable Assets**~~ The preceding example provided an illustration of the consolidation entries for a downstream intercompany non-depreciable asset sale transaction. In the case of *wholly owned subsidiaries*, there is no difference in the **[H]** consolidation entries for upstream versus downstream transactions involving intercompany (i.e., affiliated) transfers of non-depreciable assets among commonly controlled companies (assuming we hold constant the parent company's pre-consolidation bookkeeping for the Equity Investment account). This is because all deferred profit must be removed from the combined financial statements, regardless of the direction of the transaction.<sup>18</sup>

If we consider the accounts affected and the amounts in the preceding example, the account relationships, **[H]** consolidating entries, and consolidated balances in Exhibits 4.15 and 4.17 are the same in the upstream case. In our stylized example, because all of the income recognized by the subsidiary is related to the intercompany sale of non-depreciable assets, then there is no need for consolidating entry **[C]** in either year. That's because, under the equity method of pre-consolidation Investment bookkeeping, the parent company would have made the following journal entries in the first year to record the parent's share of the subsidiary's income and to remove the deferred intercompany asset-sale income:<sup>19</sup>

Equity investment .....	20	
Income (loss) from subsidiary .....		20
<i>(to record the equity-method adjustment for income recognized by the subsidiary)</i>		
Income (loss) from subsidiary .....	20	
Equity investment .....		20
<i>(to eliminate deferred intercompany profit from Income (loss) from subsidiary and Equity Investment accounts in year of upstream sale of land)</i>		

Thus, in the case of upstream sales, the equity method of accounting causes the parent's Equity Investment-related accounts to reflect only transactions that involve unaffiliated entities.



**LO 4** Describe the accounting for intercompany sales of depreciable noncurrent assets between the parent and the subsidiary when the parent uses the equity method of pre-consolidation investment bookkeeping.

## Accounting for the Intercompany Sale of Depreciable Assets—Equity Method

At first glance, the intercompany transfer of noncurrent depreciable assets, like buildings, seems like it should pose the same consolidation issues as the intercompany transfer of noncurrent non-depreciable assets, like land. Indeed, on the date of the sale between affiliated companies, the accounting implications are identical: defer *all* intercompany profit in the preparation of the consolidated balance sheet and income statement. However, *after* the date of the intercompany transfer, the accounting implications are quite different for depreciable and non-depreciable assets *because the purchasing company will depreciate the assets subsequent to acquisition based on the (higher) cost of the asset and, as a result, more depreciation expense will be recognized than would have been recognized had the asset not been sold.*<sup>20</sup> Thus, for depreciable assets, the consolidation procedures involve eliminating the remaining balance of the deferred profit from the balance sheet and the depreciated/amortized deferred profit from the income statement. The net results of the consolidation procedures are to report net asset and income statement balances that look as if the intercompany transaction never occurred. In the next section, we describe the intuition underlying these procedures.

<sup>18</sup> This statement is also true for an “upstream” sale of non-depreciable assets from one subsidiary to another subsidiary.

<sup>19</sup> Once again, we made significant simplifying assumptions in this example. In particular, we assumed that there were no other transactions or balances, except for the land-related items. Thus, the subsidiary's only income would have been derived from the upstream sale of land. In typical consolidations, where the subsidiary also makes sales to unaffiliated parties, the **[C]** entry would eliminate all subsidiary net income resulting from transactions with unaffiliated parties.

<sup>20</sup> The increased annual depreciation expense on the books of the asset purchaser assumes that the asset was sold for a gain and the expected life of the asset for the purchaser is the same as the expected life on the books of the selling company. If the asset is sold for a loss (and if the expected life of the asset for the purchaser is the same as the expected life on the books of the selling company), then the annual depreciation expense on the books of the purchaser of the asset will be lower.



On January 1, 2019, the subsidiary held no inventories purchased from the parent. During the year ending December 31, 2019, the parent company sold \$500,000 of inventory to its subsidiary. All of the parent's sales to affiliates and non-affiliates have the same gross margin. During 2019, the subsidiary sold to unaffiliated third-party customers all of the items of inventory purchased from the parent.

**LO1 14. Intercompany sales, no profits in ending inventory**

What amount of revenues will be reported in the consolidated financial statements for the year ended December 31, 2019?

- a. \$3,900,000
- b. \$3,400,000
- c. \$2,800,000
- d. \$4,400,000

**LO1 15. Intercompany sales, no profits in ending inventory**

What amount of gross profit will be reported in the consolidated financial statements for the year ended December 31, 2019?

- a. \$ 840,000
- b. \$1,250,000
- c. \$1,400,000
- d. \$2,500,000

**Use the following facts for Multiple Choice problems 16–17.**

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 pre-consolidation income statements for the year ending December 31, 2019:

	Parent	Subsidiary
Revenues .....	\$3,000,000	\$2,000,000
Cost of goods sold .....	(2,250,000)	(1,300,000)
Gross profit .....	<u>\$ 750,000</u>	<u>\$ 700,000</u>

On January 1, 2019, the subsidiary held no inventories purchased from the parent. During the year ending December 31, 2019, the parent company sold \$400,000 of inventory to its subsidiary. All of the parent's sales to affiliates and non-affiliates have the same gross margin. At December 31, 2019, the subsidiary still held in its inventory \$120,000 of merchandise purchased from the parent. The remaining inventory was sold to unaffiliated third-party customers during the year ended December 31, 2020.

**LO1 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, 2019?

- a. \$3,000,000
- b. \$4,600,000
- c. \$5,000,000
- d. \$5,030,000

**LO1 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, 2019?

- a. \$1,450,000
- b. \$1,440,000
- c. \$1,420,000
- d. \$ 750,000

**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, 2019, prior to any investment bookkeeping or intercompany adjustments:



	Investor	Investee
<b>Income statement:</b>		
Revenues . . . . .	\$ 4,800,000	\$800,000
Income from Investee . . . . .	209,600	0
Expenses . . . . .	(3,200,000)	(480,000)
Net income . . . . .	<u>\$ 1,809,600</u>	<u>\$320,000</u>
<b>Statement of retained earnings:</b>		
Beginning retained earnings . . . . .	\$ 1,488,000	\$ 80,000
Net income . . . . .	1,809,600	320,000
Dividends declared . . . . .	(128,000)	(80,000)
Ending retained earnings . . . . .	<u>\$ 3,169,600</u>	<u>\$320,000</u>
<b>Balance sheet:</b>		
Current assets . . . . .	\$ 1,600,000	\$200,000
Equity investment . . . . .	465,600	—
Noncurrent assets . . . . .	8,000,000	600,000
Total assets . . . . .	<u>\$10,065,600</u>	<u>\$800,000</u>
Liabilities . . . . .	\$ 5,296,000	\$320,000
Common stock & APIC . . . . .	1,600,000	160,000
Retained earnings . . . . .	3,169,600	320,000
	<u>\$10,065,600</u>	<u>\$800,000</u>

Based on this information, determine the balances for the accounts listed in questions 21–27:

**21. Intercompany inventory transactions**

**L03**

Consolidated Revenues:

- \$5,840,000
- \$4,800,000
- \$5,360,000
- \$5,600,000



**22. Intercompany inventory transactions and Acquisition Accounting Premium**

**L03**

Consolidated Expenses:

- \$3,200,000
- \$3,680,000
- \$3,738,000
- \$3,498,000



**23. Noncontrolling interest, upstream deferred intercompany inventory profits and Acquisition Accounting Premium**

**L02, 3**

Consolidated net income attributable to noncontrolling interest:

- \$64,000
- \$60,400
- \$56,000
- \$52,400



**24. Intercompany inventory transactions**

**L03**

Current Assets:

- \$1,782,000
- \$1,740,000
- \$1,800,000
- \$1,818,000





## Consolidation Spreadsheet for the Year Ended December 31, 2019

			Consolidation Entries			
	Parent	Subsidiary	Dr		Cr	Consolidated
<b>Income statement:</b>						
Sales	\$ 920,000	\$400,000	[I <sub>sales</sub> ] \$ 48,000			\$1,272,000
Cost of goods sold	(480,000)	(236,000)	[I <sub>cogs</sub> ] 8,400	[I <sub>cogs</sub> ] \$ 6,600		(669,800)
				[I <sub>sales</sub> ] 48,000		
Gross profit	440,000	164,000				602,200
Depreciation & amortization expense	(24,000)	(19,200)	[D] 19,200	[I <sub>dep.</sub> ] 6,000		(56,400)
Operating expenses	(260,000)	(52,600)				(312,600)
Interest expense	(12,000)	(4,200)				(16,200)
Total expenses	(296,000)	(76,000)				(385,200)
Income (loss) from subsidiary	22,400	—	[C] 22,400			0
Consolidated net income	166,400	88,000				217,000
Income attributable to NCI	—	—	[C] 15,080			(15,080)
Income attributable to controlling interest	\$ 166,400	\$ 88,000				\$ 201,920
<b>Statement of retained earnings:</b>						
Beginning retained earnings	\$ 436,600	\$220,000	[E] 220,000	[ADJ] 59,680		\$ 496,280
Income attributable to controlling interest	166,400	88,000				201,920
	603,000	308,000				698,200
Dividends declared						
Parent	(120,000)					(120,000)
Subsidiary		(28,000)		[C] 28,000		—
Ending retained earnings	\$ 483,000	\$280,000				\$ 578,200
<b>Balance sheet:</b>						
Cash	\$ 77,440	\$ 30,000				\$ 107,440
Accounts receivable	108,000	96,000		[I <sub>pay</sub> ] 16,000		188,000
Inventories	260,000	92,000		[I <sub>cogs</sub> ] 8,400		343,600
PPE, net	252,000	220,000	[A] 7,200	[D] 7,200		454,000
			[I <sub>dep.</sub> ] 6,000	[I <sub>gain</sub> ] 24,000		
Other assets	114,000	200,000				314,000
Patents		20,000	[A] 36,000	[D] 12,000		44,000
Equity investment	360,000		[ADJ] 59,680	[E] 384,000		0
			[I <sub>cogs</sub> ] 5,280	[A] 64,960		
			[I <sub>gain</sub> ] 24,000			
Goodwill			[A] 36,000			36,000
Total assets	\$1,171,440	\$658,000				\$1,487,040
Accounts payable	\$ 64,440	\$ 24,000	[I <sub>pay</sub> ] 16,000			\$ 72,440
Notes payable	100,000	42,000				142,000
Other liabilities	44,000	52,000				96,000
Common stock	480,000	260,000	[E] 260,000			480,000
Retained earnings	483,000	280,000				578,200
Noncontrolling interest			[I <sub>cogs</sub> ] 1,320	[C] 9,480		118,400
				[E] 96,000		
				[A] 14,240		
Total liabilities and equity	\$1,171,440	\$658,000	\$784,560	\$784,560		\$1,487,040



	Parent	Subsidiary		Parent	Subsidiary
<b>Income statement:</b>			<b>Balance sheet:</b>		
Sales . . . . .	\$4,000,000	\$600,000	Cash . . . . .	\$ 500,000	\$ 250,000
Cost of goods sold . . . . .	(2,400,000)	(340,000)	Accounts receivable . . . . .	700,000	450,000
Gross profit . . . . .	1,600,000	260,000	Inventories . . . . .	900,000	500,000
Operating & other expenses . . . . .	(1,200,000)	(140,000)	Property, plant and equipment, net. . .	2,000,000	900,000
Bond interest income . . . . .	42,000		Equity investment . . . . .	538,080	
Bond interest expense . . . . .		(52,800)	Investment in bond (net) . . . . .	612,000	
Income from subsidiary . . . . .	64,560	—	Total assets . . . . .	<u>\$5,250,080</u>	<u>\$2,100,000</u>
Net income . . . . .	<u>\$ 506,560</u>	<u>\$ 67,200</u>	Accounts payable . . . . .	\$ 800,000	\$ 210,000
<b>Retained earnings statement:</b>			Other current liabilities . . . . .	750,000	300,000
Beginning retained earnings . . . . .	\$ 943,520	\$402,400	Bond payable (net) . . . . .		590,400
Net income . . . . .	506,560	67,200	Other long-term liabilities . . . . .	950,000	300,000
Dividends . . . . .	(300,000)	(30,000)	Common stock . . . . .	600,000	60,000
Ending retained earnings . . . . .	<u>\$1,150,080</u>	<u>\$439,600</u>	APIC . . . . .	1,000,000	200,000
			Retained earnings . . . . .	1,150,080	439,600
			Total liabilities and equity . . . . .	<u>\$5,250,080</u>	<u>\$2,100,000</u>

Provide the consolidation entries and prepare a consolidation worksheet for the year ended December 31, 2019.



**LO3 67. Consolidation worksheet for gain on constructive retirement of subsidiary's debt with no AAP—Cost method**

Assume that a Parent company acquires a 75 percent interest in its Subsidiary on January 1, 2015. On the date of acquisition, the fair value of the 75 percent controlling interest was \$600,000 and the fair value of the 25 percent noncontrolling interest was \$200,000. On January 1, 2015, the book value of net assets equaled \$800,000 and the fair value of the identifiable net assets equaled the book value of identifiable net assets (i.e., there was no AAP or Goodwill). On January 1, 2015, the retained earnings of the subsidiary was \$150,000.

On December 31, 2016, the Subsidiary company issued \$750,000 (face) 6 percent, five-year bonds to an unaffiliated company for \$765,000. The bonds pay interest annually on December 31, and the bond premium is amortized using the straight-line method. This results in annual bond-payable premium amortization equal to \$3,000 per year. The following schedule provides the bond-amortization schedule from the initial issuance date.

Date	Cash Payment	Amortization of Premium	Interest Expense	Carrying Amount
Dec. 31, 2016 . . . . .				\$765,000
Dec. 31, 2017 . . . . .	\$45,000	\$3,000	\$42,000	762,000
Dec. 31, 2018 . . . . .	45,000	3,000	42,000	759,000
Dec. 31, 2019 . . . . .	45,000	3,000	42,000	756,000
Dec. 31, 2020 . . . . .	45,000	3,000	42,000	753,000
Dec. 31, 2021 . . . . .	45,000	3,000	42,000	750,000

On December 31, 2018, the Parent paid \$735,000 to purchase all of the outstanding Subsidiary company bonds. The bond discount is amortized using the straight-line method, which results in annual bond-investment discount amortization equal to \$5,000 per year. The following schedule provides the bond-amortization schedule for the Parent's bond investment.

Date	Cash Payment	Amortization of Discount	Interest Income	Carrying Amount
Dec. 31, 2018 . . . . .				\$735,000
Dec. 31, 2019 . . . . .	\$45,000	\$5,000	\$50,000	740,000
Dec. 31, 2020 . . . . .	45,000	5,000	50,000	745,000
Dec. 31, 2021 . . . . .	45,000	5,000	50,000	750,000

The Parent uses the cost method of pre-consolidation investment bookkeeping. The Parent and the Subsidiary report the following financial statements for the year ended December 31, 2019:



	Parent	Subsidiary		Parent	Subsidiary
<b>Income statement:</b>			<b>Balance sheet:</b>		
Sales . . . . .	\$6,500,000	\$800,000	Cash . . . . .	\$ 700,000	\$ 300,000
Cost of goods sold . . . . .	(4,500,000)	(450,000)	Accounts receivable . . . . .	800,000	500,000
Gross profit . . . . .	2,000,000	350,000	Inventories . . . . .	1,000,000	800,000
Operating & other expenses . . . . .	(1,500,000)	(200,000)	Property, plant & equipment, net . .	3,000,000	1,250,000
Bond interest income . . . . .	50,000		Equity investment . . . . .	600,000	
Bond interest expense . . . . .		(42,000)	Investment in bond (net) . . . . .	740,000	
Total expenses . . . . .	(1,450,000)	(242,000)	Total assets . . . . .	\$6,840,000	\$2,850,000
Income from subsidiary . . . . .	30,000	—	Accounts payable . . . . .	\$ 800,000	\$ 250,000
Net income . . . . .	\$ 580,000	\$108,000	Other current liabilities . . . . .	900,000	400,000
<b>Retained earnings statement</b>			Bond payable (net) . . . . .		756,000
Beginning retained earnings . . . . .	\$ 760,000	\$276,000	Other long-term liabilities . . . . .	1,400,000	450,000
Net income . . . . .	580,000	108,000	Common stock . . . . .	600,000	150,000
Dividends . . . . .	(200,000)	(40,000)	APIC . . . . .	2,000,000	500,000
Ending retained earnings . . . . .	\$1,140,000	\$344,000	Retained earnings . . . . .	1,140,000	344,000
			Total liabilities and equity . . . . .	\$6,840,000	\$2,850,000

Provide the consolidation entries and prepare a consolidation worksheet for the year ended December 31, 2019.

**68. Consolidation worksheet for loss on constructive retirement of subsidiary's debt with no AAP—Cost method**

LO3



Assume that a Parent company acquires an 85 percent interest in its Subsidiary on January 1, 2015. On the date of acquisition, the fair value of the 85 percent controlling interest was \$578,000 and the fair value of the 15 percent noncontrolling interest was \$102,000. On January 1, 2015, the book value of net assets equaled \$680,000 and the fair value of the identifiable net assets equaled the book value of identifiable net assets (i.e., there was no AAP or Goodwill). On January 1, 2015, the retained earnings of the subsidiary was \$380,000.

On December 31, 2016, the Parent company issued \$500,000 (face) 6 percent, five-year bonds to an unaffiliated company for \$490,000. The bonds pay interest annually on December 31, and the bond discount is amortized using the straight-line method. The following schedule provides the bond-amortization schedule from the initial issuance date.

Date	Cash Payment	Amortization of Discount	Interest Expense	Carrying Amount
Dec. 31, 2016 . . . . .				\$490,000
Dec. 31, 2017 . . . . .	\$30,000	\$2,000	\$32,000	492,000
Dec. 31, 2018 . . . . .	30,000	2,000	32,000	494,000
Dec. 31, 2019 . . . . .	30,000	2,000	32,000	496,000
Dec. 31, 2020 . . . . .	30,000	2,000	32,000	498,000
Dec. 31, 2021 . . . . .	30,000	2,000	32,000	500,000

On December 31, 2018, the Subsidiary paid \$507,500 to purchase all of the outstanding parent company bonds. The bond premium is amortized using the straight-line method. The following schedule provides the bond-amortization schedule for the Subsidiary's bond investment.

Date	Cash Payment	Amortization of Premium	Interest Income	Carrying Amount
Dec. 31, 2018 . . . . .				\$507,500
Dec. 31, 2019 . . . . .	\$30,000	\$2,500	\$27,500	505,000
Dec. 31, 2020 . . . . .	30,000	2,500	27,500	502,500
Dec. 31, 2021 . . . . .	30,000	2,500	27,500	500,000

The Parent uses the cost method of pre-consolidation investment bookkeeping. The Parent and the Subsidiary report the following financial statements for the year ended December 31, 2019:



relevant recognition, remeasurement, and settlement dates in that example are November 15, 2018, December 31, 2018, and February 15, 2019, respectively. The following table includes the spot rates and \$US-based accounts payable carrying value included in the original example along with new information on the assumed forward rates and fair value of the foreign currency forward contract:

Date	Spot Rate (\$US = €1)	FC Accounts Payable		Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability) <sup>b</sup>	Change in FV
November 15, 2018 . . . . .	1.30	\$(195,000)		1.35		
December 31, 2018 . . . . .	1.40	(210,000)	\$(15,000)	1.42	\$10,500	\$10,500
February 15, 2019 . . . . .	1.45	(217,500)	(7,500)	1.45	15,000	4,500

<sup>a</sup> For settlement on February 15, 2019

<sup>b</sup> Technically, fair value would include a discount factor for the time value of money. Given the short duration of these forward contracts, discounting will have a trivial effect on fair value estimation. Thus, we ignore discounting in the estimation of fair value of forward contracts in this chapter. Ignoring discounting, the approximate fair value of the forward contract is  $(\$1.42:€1 - \$1.35:€1) \times €150,000 = \$10,500$  at December 31, 2018 and  $(\$1.45:€1 - \$1.35:€1) \times €150,000 = \$15,000$  at February 15, 2019.

We summarize the journal entries for the original accounts payable and the forward-contract derivative designated as a fair value hedge as follows:

Foreign-Currency-Denominated Accounts Payable				Forward-Contract Derivative—Fair Value Hedge		
Date	Accounts	Debit	Credit	Accounts	Debit	Credit
11/15/18	Inventories . . . . .	195,000		(Must document hedging relationship and hedge effectiveness in accounting system. Fair value of forward contract is zero at inception, so no entry.)		
	Accounts Payable (€150,000) . . . . .		195,000			
	(to record the purchase of inventories for €150,000 when the exchange rate is \$1.30:€1)					
12/31/18	Cost of goods sold . . . . .	15,000		Forward contract (asset). . . . .	10,500	
	Accounts Payable (€150,000) . . . . .		15,000	Cost of goods sold . . . . .		10,500
	(to record the increase in the \$US value of the €150,000 when the exchange rate is \$1.40:€1)			(to record the increase in the value of the forward contract: $[\$1.42\text{:€1} - \$1.35\text{:€1}] \times €150,000 = \$10,500$ )		
2/15/19	Cost of goods sold . . . . .	7,500		Forward contract (asset). . . . .	4,500	
	Accounts payable (€150,000). . . . .		7,500	Cost of goods sold . . . . .		4,500
	(to record the increase in the \$US value of the €150,000 when the exchange rate is \$1.45:€1)			(to record the increase in the value of the forward contract: $[\$1.45\text{:€1} - \$1.42\text{:€1}] \times €150,000 = \$4,500$ )		
	Accounts payable (€150,000) . . . . .	217,500		Cash . . . . .	15,000	
	Cash . . . . .		217,500	Forward contract (asset) . . . . .		15,000
	(to record the payment of €150,000 when the exchange rate is \$1.45:€1)			(to record the net settlement of the forward contract)		

The journal entries for the accounts payable are identical to those presented earlier in the chapter. For the foreign currency forward contract, we note the following:

- At the inception of the contract, the company must, in the accounting records, document the effectiveness of the hedge and designate the forward contract as a hedge of the foreign-currency-denominated accounts payable. As is typical for most forward contracts, the derivative has a fair value equal to zero at inception, so no amounts are reported in the accounting system.
- At the December 31, 2018, reporting date, the forward contract is marked to fair value.<sup>22</sup> Note that the \$10,500 foreign currency transaction gain on the derivative mostly offsets the \$15,000 foreign currency transaction loss on the €150,000 accounts payable. Pursuant to **FASB ASC 815-25-35-1**, each of these gains/losses is “presented in the same income statement line item as the earnings effect of the hedged item” (i.e., cost of goods sold). It is not a perfect offset in value because **FASB ASC 815-25-35-18** requires the hedged foreign-currency-denominated asset or liability to be remeasured at

<sup>22</sup> As we mentioned previously, fair value usually includes a discount for the time value of money. However, given the short duration of the contracts, we are ignoring discount factors in the estimation of fair value of forward contracts in this chapter.



Foreign-Currency-Denominated Firm Commitment & Sale				Forward-Contract Derivative—Fair Value Hedge		
Date	Accounts	Debit	Credit	Accounts	Debit	Credit
12/1/18	(No entry.)			(Must document hedging relationship and hedge effectiveness in accounting system. Fair value of forward contract is zero at inception, so no entry.)		
12/31/18	Hedged firm commitment (asset) . . . . .	52,500		Sales . . . . .		52,500
	Sales . . . . .		52,500	Forward contract (liability) . . . . .	52,500	
	(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 \$1.42:€1)			(to record the <b>change in</b> the value of the forward contract: [ $\$1.42:\text{€}1 - \$1.35:\text{€}1$ ] $\times$ €750,000 = \$52,500)		
3/1/19	Hedged firm commitment (asset) . . . . .	22,500		Sales . . . . .		22,500
	Sales . . . . .		22,500	Forward contract (liability) . . . . .	22,500	
	(to record the change in value of the firm commitment asset through the settlement date when the exchange rate is \$1.45:€1)			(to record the <b>change in</b> the value of the forward contract: [ $\$1.45:\text{€}1 - \$1.42:\text{€}1$ ] $\times$ €750,000 = \$22,500)		
	Cash . . . . .	1,087,500		Forward contract (liability) . . . . .	75,000	
	Sales . . . . .		1,087,500	Cash . . . . .		75,000
	(to record sale of inventory at spot rate)			(to record the net settlement of the forward contract)		
	Sales . . . . .		75,000			
	Hedged firm commitment (asset) . . . . .		75,000			
	(to reclassify the firm commitment asset to sales when the sales transaction is completed)					

For the foreign-currency-denominated firm commitment to sell inventory and the foreign currency forward contract, we note the following:

- As before, at the inception of the contract, the company must, in the accounting records, document the effectiveness of the hedge and designate the forward contract as a hedge of the foreign-currency-denominated firm commitment to sell inventory.
- At the December 31, 2018, reporting date, the forward contract is marked to fair value. The \$52,500 foreign currency transaction loss on the derivative exactly offsets the \$52,500 foreign currency transaction gain on the firm commitment. That is a mechanical relationship. If the derivative is 100% effective in hedging the foreign currency exchange risk, then the gain or loss on the firm commitment is equal to the offsetting loss or gain on the hedging derivative. Pursuant to **FASB ASC 815-25-35-1**, each of these gains/losses is “presented in the same income statement line item as the earnings effect of the hedged item” (i.e., Sales). Interestingly, the \$52,500 firm commitment asset is simply an artifact of recognizing the gain on the firm commitment. We need to have an offsetting debit to the \$52,500 gain we credited. This “asset” is simply a suspense account that will be reversed into sales when the firm commitment sales transaction takes place.
- At the March 1, 2019, inventory-sale and derivative-settlement date, the forward contract is marked to fair value (i.e., a foreign currency transaction loss of \$22,500) and the offsetting amount is recognized as a foreign currency transaction gain on the hedged firm commitment. These gains/losses are “presented in the same income statement line item as the earnings effect of the hedged item” (i.e., Sales). The foreign currency forward contract is settled for a cash outflow of \$75,000 and the firm commitment sale is recorded at the spot amount of \$1,087,500. Finally, the \$75,000 balance in the hedged firm commitment (asset) is reversed into the recorded sales for the period.
- The end result of using the derivative to hedge the €750,000 foreign-currency-denominated firm commitment to sell inventory is the company is better able to completely predict the net amount of \$US it will receive to sell the inventory and settle the derivative contract, taken together. Specifically, note that the net amount of cash received for the sale of inventory and the settlement of the derivative contract is a \$1,012,500 net inflow (i.e., gross inflow of \$1,087,500 for the inventory sale and gross outflow of \$75,000 for the derivative). As you can see, this is exactly the amount of net inflow the company could predict at the inception of the derivative contract by taking the forward rate of \$1.35:€1 multiplied by the €750,000 (i.e., \$1,012,500). In addition, the net amount



- The company must, in the accounting records, document the effectiveness of the hedge and designate the forward contract as a hedge of the foreign-currency-denominated firm commitment to purchase equipment.
- At the December 31, 2018, reporting date, the forward contract is marked to fair value. The \$24,000 foreign currency transaction gain on the derivative exactly offsets the \$24,000 foreign currency transaction **loss** on the firm commitment. As was the case in the previous firm commitment example, this is a mechanical relationship. If the derivative is 100% effective in hedging the foreign currency exchange risk, then the gain or loss on the firm commitment is equal to the offsetting loss or gain on the hedging derivative. Pursuant to **FASB ASC 815-25-35-1**, each of these gains/losses is “presented in the same income statement line item as the earnings effect of the hedged item” (i.e., Depreciation expense).<sup>27</sup> It’s also important to note, the \$24,000 firm commitment liability is simply an artifact of recognizing the loss on the firm commitment. Similar to the previous firm commitment example, in this case we need to have an offsetting credit to the \$24,000 loss we **debited**. This “liability” is simply a suspense account that will be reversed against the plant and equipment account when the firm commitment purchase transaction takes place.
- At the March 31, 2019, equipment purchase and derivative-settlement date, the forward contract is marked to fair value (i.e., a foreign currency transaction gain of \$12,000) and the offsetting amount is recognized as a foreign currency transaction loss on the hedged firm commitment. These gains/losses are “presented in the same income statement line item as the earnings effect of the hedged item” (i.e., Depreciation expense). The foreign currency forward contract is settled for a cash inflow of \$36,000 and the firm commitment purchase of equipment is recorded at the spot amount of \$1,536,000. Finally, the \$36,000 balance in the hedged firm commitment (liability) is reversed against the recorded plant and equipment account.
- The end result of using the derivative to hedge the €1,200,000 foreign-currency-denominated firm commitment to purchase equipment is the company is better able to completely predict the net amount of \$US it will pay to buy the equipment and settle the derivative contract, taken together. Specifically, note that the net amount of cash paid for the purchase of equipment and the settlement of the derivative contract is a \$1,500,000 net outflow (i.e., gross outflow of \$1,536,000 for the equipment purchase and gross inflow of \$36,000 for the forward contract). As you can see, this is exactly the amount of net outflow the company could predict by taking the forward rate of \$1.25:€1 multiplied by the €1,200,000 (i.e., \$1,500,000). In addition, the net amount of plant and equipment recognized by our company equals the \$1,500,000 amount (i.e., purchase at spot equals \$1,536,000 less the reclassified hedged firm commitment (liability) equal to \$36,000).

Next, we will turn to the cash flow hedging model allowed by **FASB ASC 815**.

## Cash Flow Hedge

When derivatives qualify for cash flow hedge treatment, then (1) the derivative is marked to fair value at each financial statement date, (2) the gains or losses on the components of the derivative *included* in the assessment of hedge effectiveness are recognized, net of tax, in OCI in the periods during which the gains and losses occurred,<sup>28</sup> and (3) these accumulated gains and losses will be reversed out of

<sup>27</sup> It may seem unusual to record the offsetting gains and losses for the firm commitment in depreciation expense, but this is a literal interpretation of the **FASB ASC 815-25-35-1** requirement to recognize the gains/losses “in the same income statement line item as the earnings effect of the hedged item.” Of course, the name of the account title is moot when the hedge is perfectly effective (i.e., as in this example) because the gains and losses exactly offset.

<sup>28</sup> Prior to ASU 2017-12, the ineffective portion of the components of the derivative included in the assessment of hedge effectiveness would be recognized in the determination of net income in the period in which the change in fair value for the ineffective portion occurred. ASU 2017-12 modified **FASB ASC 815-30-35-3** to state, “When the relationship between the hedged item and hedging instrument is highly effective at achieving offsetting changes in cash flows attributable to the hedged risk, an entity shall record in other comprehensive income the entire change in the fair value of the designated hedging instrument that is included in the assessment of hedge effectiveness.” In other words, if the cash flow hedge derivative is considered to be highly effective (i.e., between 80%–125% effective), then the entire gain or loss on the change in fair value of the designated hedging instrument that is included in the assessment of hedge effectiveness will be included in other comprehensive income.



2019, with payment in Euros on the same date. Although our company does recurring business with the French company, this anticipated transaction does not qualify as a firm commitment. Also assume, on December 1, 2018, our company enters into a contract with a foreign currency exchange broker to sell Euros (for settlement on March 1, 2019) to mitigate the risk of exchange rate fluctuation. As before, the relevant exchange rates and related balances for the period from December 1, 2018 to March 1, 2019, are as follows:

Date	Spot Rate (\$US = €1)	Forecasted Sale Transaction	Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
				FV Asset (Liability) <sup>b</sup>	Change in FV
December 1, 2018 .....	1.30		1.35		
December 31, 2018 .....	1.40		1.42	\$(52,500)	\$(52,500)
March 1, 2019 .....	1.45	\$1,087,500	1.45	(75,000)	(22,500)

<sup>a</sup> For settlement on March 1, 2019

<sup>b</sup> We ignore discounting in the computation of fair values. The approximate fair value of the forward contract is  $(\$1.42:€1 - \$1.35:€1) \times €750,000 = \$52,500$  at December 31, 2018, and  $(\$1.45:€1 - \$1.35:€1) \times €750,000 = \$75,000$  at March 1, 2019.

We summarize the journal entries for the hedged foreign-currency-denominated forecasted sale of inventory as follows:

Foreign-Currency-Denominated Forecasted Sale				Forward-Contract Derivative—Cash Flow Hedge		
Date	Accounts	Debit	Credit	Accounts	Debit	Credit
12/1/18	(No entry.)			(Must document hedging relationship and hedge effectiveness in accounting system. Fair value of forward contract is zero at inception, so no entry.)		
12/31/18	(No entry.)			OCI—Cash flow hedge loss .....	52,500	
				Forward contract (liability) .....		52,500
				(to record the <b>decrease in</b> the value of the forward contract: [ $\$1.42:€1 - \$1.35:€1$ ] $\times$ €750,000 = \$52,500)		
3/1/19	Cash .....	1,087,500		Sales .....	22,500	
	Sales .....		1,087,500	Forward contract (liability) .....		22,500
	(to record sale of inventory at the spot rate)			(to record the increase in the value of the forward contract: [ $\$1.45:€1 - \$1.42:€1$ ] $\times$ €750,000 = \$22,500)		
				Forward contract (liability) .....	75,000	
				Cash .....		75,000
				(to record the net settlement of the forward contract)		
				Sales .....	52,500	
				AOCI—Cash flow hedge loss .....		52,500
				(to record the reclassification of the AOCI FC transaction losses to sales in the period of the transaction)		

For the foreign-currency-denominated forecasted sale and the foreign currency forward contract, we note the following:

- To obtain cash flow hedge treatment, at the inception of the contract and in the accounting records, the company must document the effectiveness of the hedge and designate the forward contract as a hedge of the foreign-currency-denominated forecasted transaction to sell inventory.
- At the December 31, 2018, reporting date, the forward contract is marked to fair value. Because this is a hedge of a forecasted transaction, there is no transaction or balance recognized in the financial statements to offset the \$52,500 derivative fair value loss. To mitigate potential volatility in reported net income, FASB ASC 815 requires that the foreign currency transaction gain or loss on cash flow hedge derivatives be recognized in OCI. After running through OCI, these gains and losses become part of AOCI on the balance sheet (i.e., just like net income flows into retained earnings on the balance sheet).



- The end result of using the option contract to hedge the €500,000 foreign-currency-denominated forecasted sale of inventory is the company is better able to predict the net amount of \$US it will receive to sell the inventory and settle the derivative contract, taken together. Specifically, note that the net amount of cash received for the sale of inventory and the settlement of the derivative contract is a \$605,000 net inflow (i.e., gross inflow of \$590,000 for the inventory sale, gross outflow of \$10,000 for the option premium and gross inflow of \$25,000 for the derivative). As you can see, this is exactly the amount of net inflow the company could predict by taking the option-strike rate of \$1.23:€1 multiplied by the €500,000 (i.e., \$615,000) less the \$10,000 paid for the option premium. In addition, the net amount of sales recognized by our company equals the \$605,000 amount (i.e., sales at spot equals \$590,000 less the \$10,000 in total sales reductions for the ineffective portion of the hedge plus the \$25,000 reclassified from AOCI into sales).

## PRACTICE INSIGHT

### Embedded Derivatives

The FASB defines an embedded derivative as follows: “Implicit or explicit terms that affect some or all of the cash flows or the value of other exchanges required by a contract in a manner similar to a derivative instrument (**FASB ASC 815-15** Glossary).”

An example of an embedded derivative is a loan under which interest payments are based on changes in an underlying index, like the S&P 500 Index. For this example, the computation of the interest payments relating to the S&P 500 Index is an embedded derivative, but the basic requirement to pay interest and principal when due is not an embedded derivative. In this case, the effect of embedding a derivative instrument in the loan contract is that some or all of the cash flows (i.e., interest payments) that otherwise would be required by the contract will be modified based on an *underlying* (the S&P index) that is applied to a notional amount (the interest computation in the loan)—see our definition of a derivative financial instrument on page 482 for a discussion of underlyings and notional amounts. Many debt, equity, lease, insurance, and other executory contracts contain embedded derivatives in the form of payments that are computed with respect to interest rate, commodity and equity indexes.

Should a contract contain an embedded derivative, it must be accounted for separately if and only if all of the following criteria are met (**FASB ASC 815-15-25-1**):

- The economic characteristics and risks of the embedded derivative are not clearly and closely related to the economic characteristics and risks of the host contract.
- The hybrid instrument is not remeasured at fair value under otherwise applicable generally accepted accounting principles (GAAP) with changes in fair value reported in earnings as they occur.
- A separate instrument with the same terms as the embedded derivative would . . . be a derivative instrument.


As we previously noted, **FASB ASC 815-20-35-1** also allows companies to “recognize in earnings using a systematic and rational method over the life of the hedging instrument” the changes in derivative fair value attributable to the portion of the hedging instrument excluded from the assessment of hedge effectiveness (i.e., the ineffective portion, including time value and counterparty factors). In this example, the portion of the hedging instrument excluded from the assessment of hedge effectiveness is the initial value of the option that is wholly attributable to non-intrinsic-value factors (e.g., time value factors). In our example above, if our company elected to systematically allocate this amount over the life of the hedging instrument, then the \$10,000 of excluded value would be allocated over the six-month life of the option contract. Thus \$5,000 (i.e., 3 months  $\times$  [\$10,000 / 6 months]) would be allocated to the quarter ending March 31, 2019, and the remaining \$5,000 would be allocated to the quarter ending June 30, 2019. We excerpt only the affected entries, below, with the original approach on the left and the systematically allocated approach on the right:<sup>33</sup>

<sup>33</sup> **FASB ASC 815-20-55-235** through **55-238** provides another example of the amortization approach of accounting for the excluded portion of an option in a cash flow hedge of a forecasted purchase of crude oil.



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4. Why is it necessary to translate foreign-currency-denominated income statement and balance sheet items into \$US?  
(Hint: See FASB ASC 830-10-10.)
5. FASB ASC 830 requires the recognition in income of transaction gains and losses that result from fluctuations in the fair value of the \$US vis-à-vis other world currencies. What is the rationale for the recognition of these gains and losses in income?  
(Hint: See FASB ASC 830-20-35-1.)
6. FASB ASC 830-20-35 requires the recognition of gains and losses relating to the change in exchange rates subsequent to the rate used in the initial measurement. If exchange rates change subsequent to the date of the financial statements, should the most recent financial statements be restated to reflect the change?  
(Hint: See FASB ASC 830-20-35-8.)
7. Implementation of FASB ASC 830 might become quite cumbersome if companies are required to measure each transaction at the exchange rate in effect on the date of the transaction. Do accounting standards allow for the use of an average exchange rate for purposes of computing foreign currency translation gains and losses?  
(Hint: See FASB ASC 830-10-55-10 and -11.)
8. In addition to the recognition of gains and losses that result from foreign-currency-denominated transactions, what additional information should management disclose?  
(Hint: See FASB ASC 830-20-50-3.)
9. In what ways does a “firm commitment” differ from a “forecasted transaction” under FASB ASC 815?  
(Hint: See Glossary to FASB ASC 815.)
10. FASB ASC 815-20-25-13 allows for the eligibility of a *forecasted transaction* for designation as a cash flow hedge. Can a transaction be considered to be a forecasted transaction based solely on management intent? Or, must other factors be considered?  
(Hint: See FASB ASC 815-20-55-24.)
11. Can a net group of forecasted transaction inflows and outflows be hedged in a single cash flow hedge?  
(Hint: See FASB ASC 815-20-25-39(c).)

Assignments with the  logo in the margin are available in **my BusinessCourse**.  
See the Preface of the book for details.

## MULTIPLE CHOICE

### LO1 12. Recording accounts receivable denominated in a foreign currency

On June 19, a U.S. company sold and delivered merchandise on a 30-day account to a German corporation for 150,000 Euros. On July 19, the German company paid the U.S. company in full. Relevant currency rates were:

	June 19	July 19
Spot rate . . . . .	\$1.157	\$1.160
30-day forward rate . . . . .	1.170	1.173

What amount should the U.S. company record on June 19 as an accounts receivable for its sale to the German company?

- a. \$175,500
- b. \$175,950
- c. \$174,000
- d. \$173,550

### LO2 13. Recognizing gains on **debt instruments hedged by derivative financial instruments**

Our company has two derivatives related to two different financial instruments, instrument A and instrument B, both of which are debt instruments. The derivative related to instrument A is a fair value hedge, and the derivative related to instrument B is a cash flow hedge. ~~Our company experienced gains in the value of instruments A and B due to a change in interest rates. Which of the gains should be reported by our company in its income statement?~~

During the current year, our company experienced gains in the value of instruments A and B due to a change in interest rates. Both of these debt instruments and their related derivatives are still outstanding at the end of the current year. Which of the gains on these hedged financial instruments should be reported by our company in its income statement during the current year?



Date	Spot Rate (\$US = €1)	FC Accounts Receivable		Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability) <sup>b</sup>	Change in FV
October 15, 2018 . . . . .	1.25	\$525,000		1.29		
December 31, 2018 . . .	1.36	571,200	\$46,200	1.37	\$(33,600)	\$(33,600)
January 15, 2019 . . . . .	1.40	588,000	16,800	1.40	(46,200)	(12,600)

<sup>a</sup> For settlement on January 15, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the sale and all adjustments required for the accounts receivable and forward contract at October 15, 2018, December 31, 2018, and January 15, 2019.
- 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.
- What amount of sales was recognized in the quarter ending December 31, 2018? What amount of sales was recognized in the quarter ending March 31, 2019? Explain these amounts. What is the total amount of sales recognized across the quarters ending December 31, 2018, and March 31, 2019? Reconcile this total to your answer to part *b*.

**LO2 35. Forward exchange contract designated as a fair value hedge of a foreign-currency-denominated accounts receivable, strengthening \$US**

On November 15, 2018, our company sells to a retailer located in Belgium 20,000 units of a product at a sales price of €36 per unit, and we require payment in Euros (€). The exchange rate on the date of sale is \$1.38:€1, and the due date for payment is February 15, 2019. To mitigate the risk of exchange rate fluctuations between the sale date and the collection date, on November 15, 2018, our company enters into a forward contract with an exchange broker. The contract obligates our company to deliver €720,000 on February 15, 2019, while we lock in the \$US we will receive on that date at the forward rate of \$1.35:€1 (i.e., the forward rate on November 15, 2018, for settlement on February 15, 2019). 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 November 15, 2018, December 31, 2018, and February 15, 2019. When computing fair values, ignore discounting. Table provided at the bottom of the page.

- Prepare the journal entries to record the sale and all adjustments required for the accounts receivable and forward contract at November 15, 2018, December 31, 2018, and February 15, 2019.
- 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.
- What amount of sales was recognized in the quarter ending December 31, 2018? What amount of sales was recognized in the quarter ending March 31, 2019? Explain these amounts. What is the total amount of sales recognized across the quarters ending December 31, 2018, and March 31, 2019? Reconcile this total to your answer to part *b*.

**LO2 36. Forward exchange contract designated as a fair value hedge of a foreign-currency-denominated accounts payable, weakening \$US**

On November 20, 2018, our company purchased from a company located in Slovenia 80,000 units of a product at a purchase price of €7.00 per unit. Our company is required to pay for the merchandise in Euros (€). The exchange rate on the date of purchase is \$1.30:€1, and the due date for our payment is February 20, 2019. To mitigate the risk of exchange rate fluctuations between the purchase date and the payment date, on November 20, 2018, our company enters into a forward contract with an exchange broker. The contract obligates our company to buy €560,000 on February 20, 2019, while we lock in the \$US we will pay for the Euros on that date at the forward rate of \$1.35:€1 (i.e., the forward rate on November 20, 2018, for settlement on February 20, 2019). 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 payable and forward contract on November 20, 2018, December 31, 2018, and February 20, 2019. When computing fair values, ignore discounting.

35. table

Date	Spot Rate (US\$ = €1)	FC Accounts Receivable		Forward Rate* (US\$ = €1)	Derivative - Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability)**	Change in FV
15-Nov-18	1.38	993,600		1.35		
31-Dec-18	1.36	979,200	(14,400)	1.33	14,400	14,400
15-Feb-19	1.30	936,000	(43,200)	1.30	36,000	21,600

\* For settlement on February 15, 2019

\*\* Ignore discounting in the computation of fair values.



Date	Spot Rate (\$US = €1)	FC Accounts Payable		Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability) <sup>b</sup>	Change in FV
November 20, 2018 . . .	1.30	\$(728,000)		1.35		
December 31, 2018 . . .	1.40	(784,000)	\$(56,000)	1.42	\$39,200	\$39,200
February 20, 2019 . . . .	1.45	(812,000)	(28,000)	1.45	56,000	16,800

<sup>a</sup> For settlement on February 20, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the purchase and all adjustments required for the accounts payable and forward contract at November 20, 2018, December 31, 2018, and February 20, 2019.
- Reconcile to the forward rate at the forward contract's inception the net cash paid for both the settlement of the payable and the settlement of the forward-contract derivative.
- Assume all of the inventory was sold by our company during the quarter ended December 31, 2018. What amount of cost of goods sold was recognized in the quarter ending December 31, 2018? What amount of cost of goods sold was recognized in the quarter ending March 31, 2019? Explain these amounts. What is the total amount of cost of goods sold recognized across the quarters ending December 31, 2018, and March 31, 2019? Reconcile this total to your answer to part *b*.

### 37. Forward exchange contract designated as a fair value hedge of a foreign-currency-denominated accounts payable, strengthening \$US

LO2



On October 20, 2018, our company purchased from a company located in Slovenia 100,000 units of a product at a purchase price of €6.00 per unit. Our company is required to pay for the merchandise in Euros (€). The exchange rate on the date of purchase is \$1.47:€1, and the due date for our payment is January 20, 2019. To mitigate the risk of exchange rate fluctuations between the purchase date and the payment date, on October 20, 2018, our company enters into a forward contract with an exchange broker. The contract obligates our company to buy €600,000 on January 20, 2019, while we lock in the \$US we will pay for the Euros on that date at the forward rate of \$1.44:€1 (i.e., the forward rate on October 20, 2018, for settlement on January 20, 2019). 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 payable and forward contract on October 20, 2018, December 31, 2018, and January 20, 2019. When computing fair values, ignore discounting.

Date	Spot Rate (\$US = €1)	FC Accounts Payable		Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability) <sup>b</sup>	Change in FV
October 20, 2018 . . . . .	1.47	\$(882,000)		1.44		
December 31, 2018 . . .	1.40	(840,000)	\$42,000	1.39	\$(30,000)	\$(30,000)
January 20, 2019 . . . . .	1.37	(822,000)	18,000	1.37	(42,000)	(12,000)

<sup>a</sup> For settlement on January 20, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the purchase and all adjustments required for the accounts payable and forward contract at October 20, 2018, December 31, 2018, and January 20, 2019.
- Reconcile to the forward rate at the forward contract's inception the net cash paid for both the settlement of the payable and the settlement of the forward-contract derivative.
- Assume all of the inventory was sold by our company during the quarter ended December 31, 2018. What amount of cost of goods sold was recognized in the quarter ending December 31, 2018? What amount of cost of goods sold was recognized in the quarter ending March 31, 2019? Explain these amounts. What is the total amount of cost of goods sold recognized across the quarters ending December 31, 2018, and March 31, 2019? Reconcile this total to your answer to part *b*.

### 38. 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

LO2



On November 1, 2018, our company purchased a foreign-currency-denominated AFS debt security for €500,000. 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 \$1.28:€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 €500,000 for \$1.31:€1 (the current forward rate) on January 31, 2019. 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 forward-contract derivative are summarized in the following table:

Date	Spot Rate (\$US = €1)	FC <b>AFS</b> Security		Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability) <sup>b</sup>	Change in FV
November 1, 2018 . . . .	1.28	\$640,000		1.31		
December 31, 2018 . . .	1.30	650,000	\$10,000	1.32	\$ (5,000)	\$(5,000)
January 31, 2019 . . . .	1.33	665,000	15,000	1.33	(10,000)	(5,000)

<sup>a</sup> For settlement on January 31, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the purchase and all adjustments required for the AFS security and the forward contract at November 1, 2018, December 31, 2018, and January 31, 2019.
- Reconcile to the forward rate at the forward contract's inception the net cash received for both the sale of the AFS security and the settlement of the forward-contract derivative.

**LO2 39. Forward exchange contract designated as a fair value hedge of foreign currency risk in a foreign-currency-denominated available-for-sale debt security, strengthening \$US**

On November 15, 2018, our company purchased a foreign-currency-denominated AFS debt security for €250,000. Our company plans to sell the security in three months (i.e., on February 15). The spot rate on the date the security is purchased is \$1.36:€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 €250,000 for \$1.34:€1 (the current forward rate) on February 15, 2019. 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 forward-contract derivative are summarized in the following table:

Date	Spot Rate (\$US = €1)	FC <b>AFS</b> Security		Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability) <sup>b</sup>	Change in FV
November 15, 2018 . . .	1.36	\$340,000		1.34		
December 31, 2018 . . .	1.30	325,000	\$(15,000)	1.32	\$ 5,000	\$ 5,000
February 15, 2019 . . . .	1.28	320,000	(5,000)	1.28	15,000	10,000

<sup>a</sup> For settlement on February 15, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the purchase and all adjustments required for the AFS security and the forward contract at November 15, 2018, December 31, 2018, and February 15, 2019.
- Reconcile to the forward rate at the forward contract's inception the net cash received for both the sale of the AFS security and the settlement of the forward-contract derivative.

**LO2 40. Forward exchange contract designated as a fair value hedge of a foreign-currency-denominated firm commitment to sell inventory, weakening \$US**

Our U.S.-based company enters into a "firm commitment" with Malta-based retailer on November 10, 2018. The firm commitment requires our company to sell 70,000 units of an inventory item costing €9.00 each to the Maltese company. Our company is contractually committed to ship the inventory (i.e., title transfers) on February 10, 2019, with payment in Euros on the same date. Our company does recurring business with the Maltese company, and the firm commitment includes significant monetary penalties for nonperformance. Also assume, on November 10, 2018, our company enters into a contract with a foreign currency exchange broker to sell Euros (for settlement on February 10, 2019) to mitigate the risk of exchange rate fluctuation. Our company's functional currency is the \$US and our forward exchange contract qualifies as a fair value hedge. The relevant exchange rates and related balances for the period from November 10, 2018, to February 10, 2019, are as follows:



contract with a foreign currency exchange broker to buy €350,000 (for settlement on March 10, 2019) to mitigate the risk of exchange rate fluctuation from this forecasted purchase of merchandise. We will pay \$1.20 per €1, which is the forward rate on October 10, 2018, for settlement on March 10, 2019. Our company took possession of the inventory and made payment (in Euros) on March 10, and sold the inventory to an unaffiliated company on May 15. Our company's functional currency is the \$US and our forward exchange contract qualifies as a cash flow hedge. The relevant exchange rates and related balances for the period from October 10, 2018, to March 10, 2019, are as follows:

Date	Spot Rate (\$US = €1)	Forecasted Purchase Transaction	Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
				FV Asset (Liability) <sup>b</sup>	Change in FV
October 10, 2018 .....	1.18		1.20		
December 31, 2018 .....	1.22		1.25	\$17,500	\$17,500
March 10, 2019. ....	1.27	\$(444,500)	1.27	24,500	7,000

<sup>a</sup> For settlement on March 10, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the purchase and all adjustments required for the forecasted purchase and forward contract at October 10, 2018, December 31, 2018, March 10, 2019, and May 15, 2019. (With respect to the sale to the unaffiliated party on May 15, 2019, only focus on the cost of goods sold transaction. Do not worry about recording the amount of the sale transaction to the unaffiliated party.)
- Reconcile to the forward rate at the forward contract's inception the net cash paid for both the inventory and the settlement of the forward-contract derivative.
- What amount of cost of goods sold was recognized in the quarter ending December 31, 2018? What amount of cost of goods sold was recognized in the quarter ending March 31, 2019? What amount of cost of goods sold was recognized in the quarter ending June 30, 2019? Explain these amounts. How do these amounts reconcile to your answer to part *b*?

**LO2 47. Forward exchange contract designated as a cash flow hedge of a foreign-currency-denominated forecasted purchase of inventory, strengthening \$US**

On November 15, 2018, our U.S.-based company entered into a cancelable purchase order with a Finland-based supplier. The purchase order states that our company will purchase from the Finnish company, on March 25, 2019, 50,000 units of an inventory item with a sales price of €16.00 each. The purchase order also specifies that our company will make payment in Euros on that same date. Our company does recurring business with the Finnish company; however, the cancelable purchase order includes no monetary penalties for nonperformance. Also, on November 15, 2018, our company entered into a contract with a foreign currency exchange broker to buy €800,000 (for settlement on March 25, 2019) to mitigate the risk of exchange rate fluctuation from this forecasted purchase of merchandise. We will pay \$1.29 per €1, which is the forward rate on November 15, 2018, for settlement on March 25, 2019. Our company took possession of the inventory and made payment (in Euros) on March 25, and sold the inventory to an unaffiliated company on June 1. Our company's functional currency is the \$US and our forward exchange contract qualifies as a cash flow hedge. The relevant exchange rates and related balances for the period from November 15, 2018, to March 25, 2019, are as follows:

Date	Spot Rate (\$US = €1)	Forecasted Purchase Transaction	Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
				FV Asset (Liability) <sup>b</sup>	Change in FV
November 15, 2018 .....	1.32		1.29		
December 31, 2018 .....	1.27		1.26	\$(24,000)	\$(24,000)
March 25, 2019. ....	1.21	\$(968,000)	1.21	(64,000)	(40,000)

<sup>a</sup> For settlement on March 25, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the purchase and all adjustments required for the forecasted purchase and forward contract at November 15, 2018, December 31, 2018, March 25, 2019, and



Date	Spot Rate (\$US = €1)	FC <b>AFS</b> Security		Forward Rate <sup>a</sup> (\$US = €1)	Derivative—Forward	
		Carrying Value	Change in Carry Val.		FV Asset (Liability) <sup>b</sup>	Change in FV
October 15, 2018 . . . . .	1.15	\$862,500		1.19		
December 31, 2018 . . . . .	1.20	900,000	\$37,500	1.22	\$(22,500)	\$(22,500)
January 15, 2019 . . . . .	1.23	922,500	22,500	1.23	(30,000)	(7,500)

<sup>a</sup> For settlement on January 15, 2019

<sup>b</sup> Ignore discounting in the computation of fair values.

- Prepare the journal entries to record the purchase and all adjustments required for the AFS security and the forward contract at October 15, 2018, December 31, 2018, and January 15, 2019.
- Reconcile to the forward rate at the forward contract's inception the net cash received for both the sale of the AFS security and the settlement of the forward-contract derivative.

**L02 63. Use of foreign currency options to hedge forecasted foreign sales**

Our U.S. company anticipates sales to customers in New Zealand in six months on March 31 that will be denominated in the New Zealand Dollar (NZD) and are expected to amount to NZD 10,000,000 (these anticipated sales are not firm commitments at this date). We are concerned that the \$US may strengthen vis-à-vis the NZD during the interim and, to hedge this exposure, we purchase a foreign currency put option with the following terms:

Contract amount . . . . .	NZD 10,000,000
Trade date . . . . .	September 30
Expiration date . . . . .	March 31 (next year)
Strike price . . . . .	NZD 2: \$1
Spot rate on trade date . . . . .	NZD 2: \$1
Option premium . . . . .	\$20,000

The option is designated as a hedge of the company's forecasted sales, and we expect that at the hedge's inception and through the date of the forecasted sales, the hedge will be perfectly effective, since the critical terms of the option contract match those of the anticipated sales.

The spot and time value of the option over the next six months are as follows:

Date	Spot Rate (NZD:\$US)	Time Value
September 30 (this year) . . . . .	NZD 2.00 : \$1	\$20,000 (cost)
December 31 (this year) . . . . .	NZD 2.10 : \$1	\$ 9,000 (assumed dealer quote)
March 31 (next year) . . . . .	NZD 2.30 : \$1	\$ 0

- Should we account for this transaction as a fair value hedge or a cash flow hedge? Why?
- Briefly describe the accounting for this transaction.
- Compute the option's intrinsic value and total value on September 30, December 31, and March 31.
- Prepare journal entries for the following:
  - Purchase of the option for \$20,000 on March 31
  - The change in the time value and intrinsic value of the option on December 31
  - The change in the time value and intrinsic value of the option on March 31
  - Cash sales to foreign customer in the amount of NZD 10,000,000 at the spot rate of NZD 2.30:\$1
  - Net cash settlement of the option at its maturity on March 31
  - Adjusting entry to transfer any deferred gains (losses) from AOCI into current earnings as of March 31
- Summarize the economics of this transaction.

**L02 64. Use of a forward contract to hedge a firm commitment (different dates for inventory purchase and forward contract settlement)**

In January 15, our company enters into an agreement to buy product from one of our Canadian suppliers that will be delivered at the end of March. The contract obligates us to pay CAD5,000,000 (Canadian dollars) on April 30. The contract meets the requirements of a firm commitment and our functional currency is the \$US. In February, we believed that the \$US would weaken vis-à-vis the CAD, thus increas-



**EXHIBIT 8.6** Foreign Subsidiary's Pre-\$US-Conversion Financial Statements for Year Ended December 31, 2019

Year Ending December 31, 2019	Subsidiary (in €)	Subsidiary (in €)	
<b>Income statement:</b>		<b>Balance sheet:</b>	
Sales . . . . .	€1,500,000	Assets	
Cost of goods sold . . . . .	(900,000)	Cash . . . . .	€ 439,500
Gross profit . . . . .	600,000	Accounts receivable . . . . .	348,000
Operating expenses . . . . .	(390,000)	Inventory . . . . .	447,000
Net income . . . . .	€ 210,000	Property, plant and equipment (PPE), net . . . . .	826,800
		Total assets . . . . .	€2,061,300
<b>Statement of retained earnings:</b>		Liabilities and stockholders' equity	
BOY retained earnings . . . . .	€ 800,100	Current liabilities . . . . .	€ 254,400
Net income . . . . .	210,000	Long-term liabilities . . . . .	592,800
Dividends . . . . .	(21,000)	Common stock . . . . .	100,000
EOY retained earnings . . . . .	€ 989,100	APIC . . . . .	125,000
		Retained earnings . . . . .	989,100
		Total liabilities and equity . . . . .	€2,061,300

We assume the following relevant exchange rates (the exchange rates for the year ended December 31, 2018, are the same as in our previous example):

January 1, 2018 Exchange rate . . . . .	\$1.25:€1
December 31, 2018 Exchange rate . . . . .	\$1.39:€1
December 31, 2019 Exchange rate . . . . .	\$1.48:€1
Weighted-average exchange rate for the year, 2018 . . . . .	\$1.33:€1
Weighted-average exchange rate for the year, 2019 . . . . .	\$1.43:€1
Exchange rate when 2018 dividends declared subsidiary . . . . .	\$1.37:€1
Exchange rate when 2019 dividends declared subsidiary . . . . .	\$1.45:€1

Using the exchange rates presented above and financial statement information from Exhibit 8.6, we provide the translation of the subsidiary's financial statements into \$US for the years ended December 31, 2018 and 2019 in Exhibit 8.7. (We also provide information from our previously performed translation for the year ended December 31, 2018, to assist you in the comparison of the two years.) Please note that, during the year, PPE, net, has decreased by €70,000, reflecting purchases of PPE assets in the amount of €137,800 and depreciation expense of €207,800. This information will become relevant when we prepare the Statement of Cash Flows in the next section.

The same basic steps conducted for the year ended December 31, 2018, were also conducted for the year ended December 31, 2019. The BOY Cumulative Translation Adjustment on December 31, 2018, is \$131,614, as before. During the second year, the Cumulative Translation Adjustment account increases by \$102,129, resulting in a Cumulative Translation Adjustment balance of \$233,743 through December 31, 2019 (in Appendix 8A, we show you how to compute this Cumulative Translation Adjustment directly rather than as a plug figure). Each year, the Cumulative Translation Adjustment account is updated in this manner.

In our example, the \$US weakened vis-à-vis the Euro and the Cumulative Translation Adjustment is positive, reflecting the growth in the net assets of the subsidiary. When the \$US *strengthens* vis-à-vis the Euro during a given period, the change in the Cumulative Translation Adjustment for the period is negative. The Cumulative Translation Adjustment account can report a negative (i.e., debit) balance during periods of \$US strengthening.



**EXHIBIT 8.14** Consolidation of a Foreign Subsidiary Spreadsheet, December 31, 2019

			Consolidation Entries		
	Parent	Subsidiary	Dr	Cr	Consolidated
Income statement:					
Sales. . . . .	\$5,000,000	\$2,145,000			\$ 7,145,000
Cost of goods sold . . . . .	(3,500,000)	(1,287,000)			(4,787,000)
Gross profit. . . . .	1,500,000	858,000			2,358,000
Equity income. . . . .	286,000		[C] \$ 286,000		0
Operating expenses . . . . .	(950,000)	(557,700)	[D] 14,300		(1,522,000)
Net income . . . . .	\$ 836,000	\$ 300,300			\$ 836,000
Statement of retained earnings:					
BOY retained earnings . . . . .	\$4,260,000	\$1,012,025	[E] 1,012,025		\$ 4,260,000
Net income . . . . .	836,000	300,300			836,000
Dividends . . . . .	(170,060)	(30,450)		[C] \$ 30,450	(170,060)
Ending retained earnings . . . . .	\$4,925,940	\$1,281,875			\$ 4,925,940
Statement of accum. comp. income:					
BOY cumulative translation adjustment . . . . .	\$ 131,614	\$ 131,614	[E] 131,614		\$ 131,614
Translation gain (loss) . . . . .	110,629	102,129	[C] 110,629	[D] 8,500	110,629
EOY cumulative translation adjustment . . . . .	\$ 242,243	\$ 233,743			\$ 242,243
Balance sheet:					
Assets					
Cash . . . . .	\$ 297,410	\$ 650,460			\$ 947,870
Accounts receivable . . . . .	640,000	515,040			1,155,040
Inventory . . . . .	970,000	661,560			1,631,560
Equity investment . . . . .	1,930,068			[C] 366,179	0
				[E] 1,424,889	
				[A] 139,000	
Property, plant and equipment (PPE), net . . . . .	5,166,000	1,223,664	[A] 139,000	[D] 5,800	6,522,864
	\$9,003,478	\$3,050,724			\$10,257,334
Liabilities and stockholders' equity					
Current liabilities . . . . .	\$ 400,500	\$ 376,512			\$ 777,012
Long-term liabilities. . . . .	500,000	877,344			1,377,344
Common stock . . . . .	521,062	125,000	[E] 125,000		521,062
APIC . . . . .	2,413,733	156,250	[E] 156,250		2,413,733
Retained earnings . . . . .	4,925,940	1,281,875			4,925,940
Cumulative translation adjustment . . . . .	242,243	233,743			242,243
	\$9,003,478	\$3,050,724	\$1,974,818	\$1,974,818	\$10,257,334

Our [C] and [E] consolidation journal entries now reflect the elimination of the portion of the Equity Investment account that relates to the BOY Cumulative Translation Adjustment and the current year Translation Adjustment (recall, the parent increases the Equity Investment account to reflect the Translation Adjustment for the year and, as a result, that account reflects the Cumulative Translation Adjustment at the beginning of the year). Our [D] consolidation journal entry is augmented to reflect the Cumulative Translation Adjustment relating to the AAP as we discuss above. The [A] consolidation journal entry is unaffected and there are no intercompany transactions to warrant an [I] consolidation journal entry.

## Disposition of the Cumulative Translation Adjustment Upon Sale of the Subsidiary

When the subsidiary is ultimately sold, the weak \$US that gave rise to the positive Cumulative Translation Adjustment account in our example will result in increased *cash flow* as the proceeds from the sale will be worth more \$US. This is a transaction gain that is similar to the gain we reported on an increased account receivable in Chapter 7. Consequently, FASB ASC 830 provides that, upon sale of the



**17. Reporting of translation and remeasurement gains and losses**

LO1, 2

One of our subsidiary companies maintains its accounting records in Euros and designates the British pound as its functional currency. Your computations yield a translation loss of \$7,000 and a remeasurement gain of \$5,000. What amount should you report as a gain (loss) in your income statement?

- a. \$0
- b. \$5,000
- c. (\$7,000)
- d. (\$2,000)

**18. Effects of translation adjustments on income and cash flow**

LO1

Assume that your subsidiary operated independently of the parent company. Which of the following is true?

	Translation adjustments have an immediate effect on cash flows	Translation adjustments should be reflected in earnings
a.	No	No
b.	No	Yes
c.	Yes	No
d.	Yes	Yes

**19. Cumulative translation adjustment account**

LO1

During the translation process, the current year change to the cumulative translation adjustment is a function of which of the following relationships of the subsidiary?

- a. Its total assets minus total liabilities
- b. Its current assets minus current liabilities
- c. Its operating cash flows
- d. Its monetary assets minus monetary liabilities

**20. Reporting of translation gains and losses**

LO1

If a subsidiary's financial statements are translated, the translation gain (loss) is related to changes in:

- a. The subsidiary's working capital
- b. The subsidiary's operating profit
- c. The subsidiary's net monetary assets
- d. The subsidiary's stockholders' equity

**21. Cumulative translation adjustment account**

LO1

Which of the following statements is true regarding the cumulative translation adjustment?

- a. Changes in the cumulative translation adjustment account are added back in the computation of net cash flow from operating activities since they are non-cash income or expense.
- b. The cumulative translation adjustment account is reported in accumulated other comprehensive income and is transferred into reported earnings when the transaction to which it relates affects reported earnings.
- c. The cumulative translation adjustment account affects the amount of gain or loss reported upon the sale of a foreign subsidiary.
- d. Changes in the cumulative translation adjustment are reported in the income statement at each statement date.



## EXERCISES

**22. Translation of financial statements**

LO1

Assume that your company owns a subsidiary operating in France. The subsidiary conducts most of its business activities in the European Economic Union and maintains its books in the Euro as its functional currency. Following are the subsidiary's financial statements (in €) for the most recent year:





(in GBP)		(in GBP)		(in GBP)	
<b>Income statement:</b>		<b>Balance sheet:</b>		<b>Statement of cash flows:</b>	
Sales . . . . .	3,150,000	Assets		Net income . . . . .	441,000
Cost of goods sold . . . . .	(1,890,000)	Cash . . . . .	896,490	Change in accounts receivable . . . . .	(121,800)
Gross profit . . . . .	1,260,000	Accounts receivable . . . . .	730,800	Change in inventories . . . . .	(156,450)
Operating expenses . . . . .	(819,000)	Inventory . . . . .	938,700	Change in current liabilities . . . . .	89,040
Net income . . . . .	<u>441,000</u>	Property, plant, and equipment (PPE), net . . . . .	<u>1,736,280</u>	Net cash from operating activities . . . . .	<u>251,790</u>
<b>Statement of retained earnings:</b>		Total assets . . . . .	<u>4,302,270</u>	Change in PPE, net . . . . .	<u>(161,280)</u>
BOY Ret. earnings . . . . .	1,653,750	Liabilities and stockholders' equity		Net cash from investing activities . . . . .	<u>(161,280)</u>
Net income . . . . .	441,000	Current liabilities . . . . .	534,240	Change in long-term debt . . . . .	207,480
Dividends . . . . .	<u>(44,100)</u>	Long-term liabilities . . . . .	1,244,880	Dividends . . . . .	<u>(44,100)</u>
Ending retained earnings . . . . .	<u>2,050,650</u>	Common stock . . . . .	210,000	Net cash from financing activities . . . . .	<u>163,380</u>
		APIC . . . . .	262,500	Net change in cash . . . . .	253,890
		Retained earnings . . . . .	<u>2,050,650</u>	Beginning cash . . . . .	<u>642,600</u>
		Total liabilities and equity . . . . .	<u>4,302,270</u>	Ending cash . . . . .	<u>896,490</u>

The relevant exchange rates for the \$US value of the British pound (GBP) are as follows:

BOY rate . . . . .	\$1.45
EOY rate . . . . .	\$1.52
Avg. rate . . . . .	\$1.48
PPE purchase date rate . . . . .	\$1.49
LTD borrowing date rate . . . . .	\$1.49
Dividend rate . . . . .	\$1.50
Historical rate (Common stock and APIC) . . . . .	\$0.55

- Translate the subsidiary's income statement, statement of retained earnings, balance sheet, and statement of cash flows from British pounds (GBP) into \$US (assume that the BOY Retained Earnings for the subsidiary is \$2,926,035).
- <sup>A</sup> Compute the ending Cumulative Translation Adjustment directly, assuming a BOY balance of \$(102,848). What journal entries did the parent company make as a result of this computation?
- Following are selected financial statement accounts for the parent:

<b>Income statement:</b>		<b>Balance sheet:</b>	
Sales . . . . .	\$13,815,000	Assets	
Cost of goods sold . . . . .	<u>(9,670,500)</u>	Cash . . . . .	\$ 1,526,569
Gross profit . . . . .	4,144,500	Accounts receivable . . . . .	1,768,320
Equity income . . . . .	652,680	Inventory . . . . .	2,680,110
Operating expenses . . . . .	<u>(2,624,850)</u>	Equity investment . . . . .	4,139,188
Net income . . . . .	<u>\$ 2,172,330</u>	PPE, net . . . . .	<u>14,273,658</u>
<b>Statement of retained earnings:</b>			<u>\$24,387,845</u>
BOY retained earnings . . . . .	\$11,898,000	Liabilities and stockholders' equity	
Net income . . . . .	2,172,330	Current liabilities . . . . .	\$ 1,106,581
Dividends . . . . .	<u>(475,920)</u>	Long-term liabilities . . . . .	750,000
Ending retained earnings . . . . .	<u>\$13,594,410</u>	Common stock . . . . .	1,568,535
<b>Statement of accum. comp. income:</b>		APIC . . . . .	7,291,571
BOY cumulative translation adjustment . . . . .	\$ (102,848)	Retained earnings . . . . .	13,594,410
Current-year translation gain (loss) . . . . .	<u>179,596</u>	Cumulative translation adjustment . . . . .	<u>76,748</u>
EOY cumulative translation adjustment . . . . .	<u>\$ 76,748</u>		<u>\$24,387,845</u>

Assume the following information: The purchase price for the subsidiary included an AAP asset relating to Land that the parent estimated was worth GBP200,000 more than its book value on the



The relevant exchange rates for the \$US value of the Brazilian real (BRL) are as follows:

BOY rate.....	\$0.19
EOY rate.....	\$0.26
Avg. rate.....	\$0.22
PPE purchase date rate.....	\$0.23
LTD borrowing date rate.....	\$0.23
Dividend rate.....	\$0.24
Historical rate (Common stock and APIC).....	\$0.07

- 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 \$617,400).
- <sup>A</sup> Compute the ending Cumulative Translation Adjustment directly, assuming a BOY balance of \$248,062. What journal entries did the parent company make as a result of this computation?
- Following are selected balance sheet accounts for the parent:

<b>Income statement:</b>		<b>Balance sheet:</b>	
Sales.....	\$30,310,000	Assets	
Cost of goods sold.....	(21,217,000)	Cash.....	\$ 7,297,685
Gross profit.....	9,093,000	Accounts receivable.....	3,879,680
Equity income.....	219,780	Inventory.....	5,880,140
Operating expenses.....	(5,758,900)	Equity investment.....	1,593,111
Net income.....	<u>\$ 3,553,880</u>	PPE, net.....	31,316,292
			<u>\$49,966,908</u>
<b>Statement of retained earnings:</b>		<b>Liabilities and stockholders' equity</b>	
BOY retained earnings.....	\$23,940,718	Current liabilities.....	\$ 2,427,831
Net income.....	3,553,880	Long-term liabilities.....	8,750,000
Dividends.....	(957,628)	Common stock.....	2,053,580
Ending retained earnings.....	<u>\$26,536,970</u>	APIC.....	9,546,376
<b>Statement of accum. comp. income:</b>		Retained earnings.....	26,536,970
BOY cumulative translation adjustment.....	\$ 248,062	Cumulative translation adjustment.....	652,152
Current-year translation gain (loss).....	404,090		<u>\$49,966,908</u>
EOY cumulative translation adjustment.....	<u>\$ 652,152</u>		

Assume the following information: The purchase price for the subsidiary included an AAP asset relating to a piece of equipment that the parent estimated was worth BRL300,000 more than its book value on the subsidiary's balance sheet. The AAP for this piece of equipment is being depreciated at the rate of BRL30,000 per year and the BOY unamortized balance of the AAP is BRL270,000.

- Compute the balance of the Equity Investment account of \$1,593,111 on the parent's balance sheet.
  - Compute the equity income of \$219,780 reported by the parent in its income statement.
- 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.



## EXERCISES

**LO4 39. Journal entry to record the budget**

Assume that a city approves the following budget for the year:

ESTIMATED REVENUES .....	\$60,000,000
ESTIMATED OTHER FINANCING SOURCES .....	9,000,000
APPROPRIATIONS .....	(40,000,000)
ESTIMATED OTHER FINANCING USES .....	(25,000,000)
BUDGETARY FUND BALANCE .....	\$ 4,000,000

Prepare the journal entry to record the budget.

**LO5 40. Preparation of fund balance section of the balance sheet**

The City of Fox Trail's general fund reports the following account information at year-end:

- \$175,000 of unexpended funds from the State of Missouri for education costs
- \$300,000 fund to be used for contingencies (unforeseen events)
- \$200,000 for the remaining balance of a fund designated for construction of a new city park
- \$15,000 of inventories
- \$250,000 of remaining proceeds from a use tax required to be spent for emergency services
- \$800,000 unassigned

Prepare the fund balance section of the balance sheet for the Fox Trail.

**LO4 41. Journal entries related to encumbrances**

Assume that a town places an order for a truck with an estimated cost of \$48,000. When the truck is delivered, the actual cost is \$51,000. Prepare the journal entries to record the issuance of the purchase order and its payment when the truck is delivered.

**LO4 42. Journal entries to close encumbrances (encumbrances do *not* lapse)**

Assume that a city records \$80,000 of encumbrances outstanding as of the end of the year. Prepare the journal entry to close the encumbrance account assuming that encumbrances do *not* lapse at year-end (i.e., budgetary authority continues into the succeeding year).

**LO4 43. Journal entries to close encumbrances (encumbrances *lapse* at year-end)**

Assume that a city records \$45,000 of encumbrances outstanding as of the end of the year. Prepare the journal entry to close the encumbrance account assuming that encumbrances *lapse* at year-end (i.e., budgetary authority ceases and must be re-established in the succeeding year).

**LO4 44. Journal entry to record the sale of a truck**

Assume that a town sells a truck that it had originally purchased for \$60,000 for a cash sale price of \$25,000. Prepare the journal entry to record the sale in the general fund.

**LO4 45. Journal entry to record the issuance and repayment of a bond**

Assume that a city issues a \$5,000,000 bond at par. The city, subsequently, pays \$250,000 in interest on the bond and \$1,000,000 of the principal. Prepare the journal entries to record the issuance of the bond and the subsequent payments.

**LO4 46. Journal entry to record the lease of equipment and subsequent payment**

Assume that a town leases equipment on a capital lease. The present value of the leased equipment is \$40,000. The city, subsequently, pays \$3,000 on the lease, \$1,000 of which is designated as interest and the remainder to a reduction of the lease obligation. Prepare the journal entries to record the acquisition of equipment via lease and the subsequent payment.

**LO4 47. Accounting for inventories (purchases method)**

Assume that a town purchases \$4,000 of supplies on account toward the end of the year. A year-end audit reveals that \$1,500 of the inventories remain unused. Prepare the journal entry for the purchase of the inventories and the year-end adjusting entry assuming that the *purchases method* is used.

**LO4 48. Accounting for inventories (consumption method)**

Assume that a town purchases \$4,000 of supplies on account toward the end of the year. A year-end audit reveals that \$1,500 of the inventories remain unused. Prepare the journal entries for the purchase of the inventories and the year-end adjusting entry assuming that the *consumption method* is used.



**49. Preparation of journal entries for a number of transactions**

LO4

Prepare journal entries for the following transactions for the City of Riverview, ID.

- The City Council approved its budget for the year for estimated revenues of \$3,700,000 and appropriations of \$3,500,000.
- Revenues received in cash amounted to \$3,600,000 for the year.
- The City issues \$500,000 of purchase orders.
- The City** received part of the goods ordered in Part *c* that were expected to cost \$450,000 along with an invoice of \$445,000. The remaining \$50,000 of purchase orders are still outstanding and unpaid at year-end.
- The City paid \$2,000,000 of wages to City employees during the year. These wages were not evidenced by a formal encumbrance since they are recurring in nature.

**50. Preparation of journal entries for a number of transactions**

LO4

The Town of Bolton reports the following transaction during the month:

- Received a \$300,000 grant from the State of Illinois that is unassigned
  - Purchased a truck for \$50,000 in cash
  - Paid wages of \$25,000 in cash
  - Borrowed \$50,000 from a bank to replenish funds used for the purchase of the truck
  - Made an interest payment on the bank loan of \$500 in cash
- Prepare journal entries in the general fund for these transactions.
  - Prepare a balance sheet and a statement of revenues, expenditures, and changes in fund balances for the general fund. Assume that the Town began the period with cash and an unassigned fund balance of \$100,000.

**PROBLEMS****51. Journal entries for a series of transactions**

LO4

Prepare journal entries in the General Fund for each of the following events relating to the City of Iron River (all amounts in \$1,000s).

- The citizens approve the following budget for the year:

ESTIMATED REVENUES .....	\$97,490
ESTIMATED OTHER FINANCING SOURCES .....	2,000
APPROPRIATIONS .....	(92,728)
BUDGETARY FUND BALANCE .....	\$ 6,762

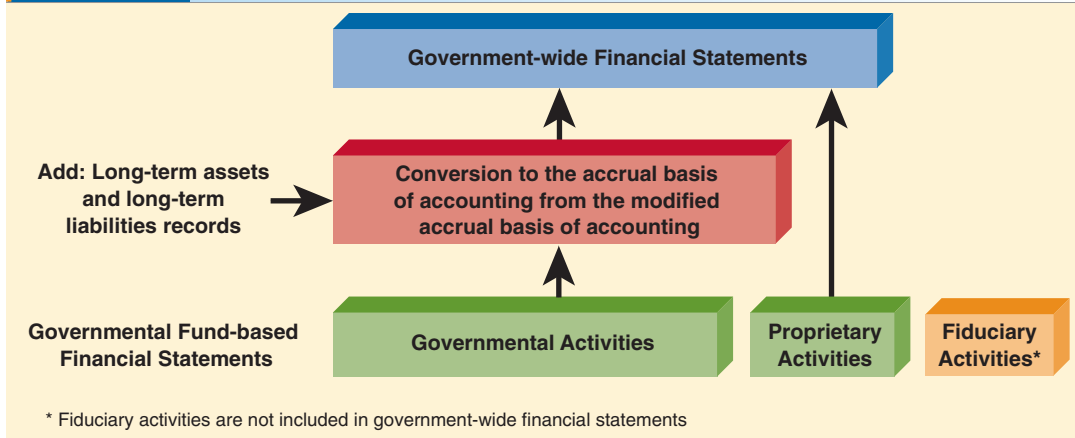
- The City records the following revenues (on account) and other financing sources (paid in cash) during the year:

Revenues—real estate and personal property taxes .....	\$82,100
Revenues—intergovernmental .....	14,742
Other financing sources—bond proceeds .....	2,000

- The City issues purchase orders totaling \$91,810 (record the issuance of orders as a lump sum).
- The City recognizes the following expenditures, all on account (these expenditures were previously recorded as budgetary encumbrances):

Expenditures—general government .....	\$15,227
Expenditures—public safety .....	9,181
Expenditures—education .....	55,086
Expenditures—public works .....	4,590
Expenditures—human services .....	9,181



**EXHIBIT 10.1** Governmental Fund-based and Government-wide Financial Statements

## COMPREHENSIVE ANNUAL FINANCIAL REPORT (CAFR)



The comprehensive annual financial report (CAFR) is the governmental entity's official annual report. The financial section of the CAFR contains both fund financial statements and government-wide financial statements, as well as management's discussion and analysis (MD&A), schedules necessary to demonstrate compliance with finance-related legal and contractual provisions that affect the government. CAFRs also have introductory and statistical sections. The minimum requirements for basic financial statements and required supplementary information are presented in Exhibit 10.2 (GASB Cod. Sec. 2200 Statement of Principle: Annual Financial Reporting ¶c, 102, and 103):

**LO1** Describe the comprehensive annual financial report (CAFR).

- a. **Management's discussion and analysis.** The MD&A should introduce the basic financial statements and provide an analytical overview of the government's financial activities.
- b. **Basic financial statements.** The basic financial statements should include:
  1. **Government-wide financial statements.** The government-wide statements should display information about the reporting government as a whole, except for its fiduciary activities. The statements should include separate columns for the governmental and business-type activities of the primary government as well as for its component units. Government-wide financial statements should be prepared using the economic resources measurement focus and the accrual basis of accounting.
  2. **Fund financial statements.** Fund financial statements for the primary government's governmental, proprietary, and fiduciary funds should be presented after the government-wide statements. Governmental fund financial statements should be prepared using the current financial resources measurement focus and the modified accrual basis of accounting (we discuss the accounting for funds in Chapter 9). Proprietary and fiduciary funds are prepared using the economic resources measurement focus and the accrual basis of accounting.
  3. **Notes to the financial statements.** These notes should communicate information essential for the fair presentation of the financial statements that is not displayed on the face of the financial statements and is required by generally accepted accounting principles for state and local governments.
- c. **Required supplementary information (RSI) other than MD&A.** Included in the financial report and separate from the notes to the financial statements, the required supplementary information consists of schedules, statistical data, and other information that the GASB has determined are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity. In addition to those presentations, the RSI includes *budgetary comparisons* that include the originally adopted budget, the final budget



**LO1, 2 30. Preparation of not-for-profit journal entries and financial statements**

Youth Camps, Inc. is a not-for-profit organization that owns a number of summer camps for inner-city children. At the end of last year, the organization reported the following trial balance:

	DR	CR
Cash .....	\$ 666,000	
Investments .....	8,880,000	
Contributions receivable .....	1,924,000	
Plant, property and equipment, net .....	4,440,000	
Payables .....		\$ 1,480,000
Long-term liabilities .....		2,960,000
Net assets—without donor restrictions .....		5,920,000
Net assets—with donor restrictions .....		5,550,000
	<u>\$15,910,000</u>	<u>\$15,910,000</u>

The investments are allocated as follows: 42% are unrestricted, 58% are donor restricted. Investment income (paid in cash) is 3% for the current year.

During the year, the organization received \$10,360,000 in donations without donor restrictions and \$1,036,000 in donations with donor restrictions. All of these donations are on account. In addition, it recognized program expenses of \$9,620,000 and expenses relating to support of \$1,369,000, both on account. Of the program expenses, \$740,000 is spent using net assets with donor restrictions for approved purposes, thus receiving the appropriate release from the donors' restrictions.

Youth Camps collected \$11,100,000 of contributions receivable, paid \$10,730,000 of payables, and purchased additional land in the amount of \$481,000 (depreciation expense of \$333,000 allocated 88% to program expenses and 12% to support expenses). Interest expense on the long-term debt is included in the expenses referenced above, and no repayment of the principal is recognized during the year.

- Prepare journal entries for the organization's financial activities during the year.
- Prepare the year-end statement of activities and statement of financial position.

**LO1, 2 31. Preparation of not-for-profit journal entries and financial statements**

Wings is a not-for-profit organization dedicated to the promotion of flying in youths. It owns a number of airplanes at various airports which it uses to provide introductory flights in order to encourage young adults to pursue flight training lessons and possible careers as commercial airline pilots. At the end of last year, Wings reported the following trial balance:

	DR	CR
Cash .....	\$ 144,000	
Investments .....	1,920,000	
Contributions receivable .....	416,000	
Property, plant and equipment, net .....	960,000	
Payables .....		\$ 320,000
Long-term liabilities .....		640,000
Net assets—without donor restrictions .....		1,280,000
Net assets—with donor restrictions .....		1,200,000
	<u>\$3,440,000</u>	<u>\$3,440,000</u>

At year-end, the investments are allocated as follows:

Net assets - without donor restrictions =	40%
Net assets - with donor restrictions =	60%

These investments earn a 3% cash return during the following year.

During the following year, Wings received \$2,240,000 of unrestricted donations and \$260,000 of donations whose use is restricted by donors as to use. All contributions are on account when made.



**27. Quantitative thresholds for classification as an operating segment**

Our company has 5 business units that we classify as operating segments. Financial data for these units follows:

(\$1,000s)	A	B	C	D	E
Sales.....	\$ 9,900	\$180,975	\$ 639,280	\$1,153,738	\$2,603,125
Profit.....	1,745	(4,304)	17,875	28,150	437,875
Assets.....	173,878	441,250	4,093,749	2,128,001	9,245,875

Which of these operating segments should be disclosed in the footnotes to our financial statements?

**28. LIFO liquidation in an interim reporting period**

Assume that our records include the following two LIFO inventory cost pools:

	Units	Cost/Unit
BOQ.....	960	\$25
Purchase #1.....	1,280	\$35
	<u>2,240</u>	

At the beginning of the quarter (BOQ), we report 960 units on hand at a cost of \$25 per unit. During the quarter, we sell 1,600 units at \$60/unit for cash. Assume that we expect to increase our quantities of inventories on hand by year-end by the purchase of inventories at a cost of \$40.

- Compute the gross profit we should recognize on the sales during the quarter.
- Prepare the required journal entries to record the sales.
- What adjusting entry will be required at year-end if the planned replacement of the inventories does not occur?

**29. Costs benefitting more than one interim reporting period**

Describe the required accounting treatment for each of the following scenarios:

- Our customer purchases \$500,000 of product from us this quarter and we expect its annual purchases to be \$3,000,000. Based on the anticipated annual purchases, our customer will be eligible for a 2% sales discount.
- At the beginning of the year, we estimate that we will receive a property tax bill in the amount of \$30,000 relating to our corporate headquarters.
- During the quarter, we incur costs to develop an advertising campaign that we expect to be aired in the next quarter and benefit the next and following quarters.
- We estimate that our sales people will achieve the annual level of sales needed to realize a 3% bonus commission. During the quarter, they report \$1 million in sales.

**30. Accrual of tax liability for an interim reporting period**

Assume that our company reports pretax income for the quarter of \$900,000. This is typically a low profit quarter for us, and we estimate that taxable income will be \$7,200,000 for the year. We also expect to be eligible for tax credits of \$324,000 that will reduce our required tax payment by that amount.

- Compute the estimated effective tax rate for the year assuming a statutory federal and state combined rate of 22%.
- Prepare the required journal entry to accrue tax liability for the interim period.

## PROBLEM

**31. Analysis of segment disclosure footnote**

**The Walt Disney Company** identifies **four** operating segments. Following are excerpts from the description provided in the company's September 30, 2017 10-K:

The Walt Disney Company, together with its subsidiaries, is a diversified worldwide entertainment company with operations in four business segments: Media Networks, Parks and Resorts, Studio Entertainment, and Consumer Products & Interactive Media.

*continued*

LO1



LO2



LO2



LO2



LO1



**THE WALT DISNEY  
COMPANY**



respective Capital Accounts. Prepare a schedule detailing the liquidation of the assets, repayment of the liabilities, and distribution of the remaining cash to the partners.

### 34. Liquidation schedule—one negative capital account with *no* capital contribution

The ABC Partnership reports the following condensed balance sheet:

Cash .....	\$ 250,000	Liabilities .....	\$ 600,000
Noncash assets .....	1,200,000	Partner A, capital .....	300,000
		Partner B, capital .....	450,000
		Partner C, capital .....	100,000
Total assets .....	<u>\$1,450,000</u>	Total liabilities and partner capital .....	<u>\$1,450,000</u>

The partners wish to liquidate the partnership. The noncash assets are sold for \$800,000 with the loss distributed to the partners in the ratio of 30:20:50 to partner A, B, and C, respectively. The liabilities are paid in full. Assume that any partners with a negative balance in their respective Capital Accounts are insolvent and, therefore, do *not* make any capital contribution to the partnership (i.e., remaining partners must absorb the negative Capital Account according to their profit-sharing formula). Prepare a schedule detailing the liquidation of the assets, repayment of the liabilities, and distribution of the remaining cash to the partners.

### 35. Liquidation schedule—two negative capital accounts with *no* capital contribution

The ABC Partnership reports the following condensed balance sheet:

Cash .....	\$ 400,000	Liabilities .....	\$ 814,000
Noncash assets .....	800,000	Partner A, capital .....	60,000
		Partner B, capital .....	300,000
		Partner C, capital .....	26,000
Total assets .....	<u>\$1,200,000</u>	Total liabilities and partner capital .....	<u>\$1,200,000</u>

The partners wish to liquidate the partnership. The noncash assets are sold for \$600,000 with the loss distributed to the partners in the ratio of 25:35:40 to partner A, B, and C, respectively. The liabilities are paid in full. Assume that any partners with a negative balance in their respective Capital Accounts are insolvent and, therefore, do *not* make any capital contribution to the partnership (i.e., remaining partners must absorb the negative Capital Account according to their profit-sharing formula). Prepare a schedule detailing the liquidation of the assets, repayment of the liabilities, and distribution of the remaining cash to the partners.

### 36. Liquidation schedule—safe payment schedule

On the date the partners in the ABCD Partnership decided to dissolve their partnership, the partners had the following pre-liquidation Capital Account balances:

Partner A, capital .....	\$33,600
Partner B, capital .....	49,200
Partner C, capital .....	21,600
Partner D, capital .....	14,400

A, B, C and D share residual profits and losses in a 4:3:2:1 ratio. Accrued liabilities at the date of dissolution total \$12,000 and noncash assets equal \$124,800. During the first month of liquidation, assets having a book value of \$66,000 were sold for \$37,200. During the second month, assets having a book value of \$38,400 were sold for \$33,600. During the third month, the remaining unsold assets were determined to be worthless. The partners receive the maximum allowable payment at the end of each month. Prepare an installment liquidation schedule along with the necessary, supporting Safe Payment Schedules.

LO5



LO5



LO5

