Appendix

D

Accounting for Investments and Consolidated Financial Statements

LEARNING OBJECTIVES

1. **Identify** and **define** the investment categories for debt and equity securities. *(p. D-2)*
2. **Describe** the accounting for various kinds of debt security investments. *(p. D-3)*
3. **Describe** the accounting for various kinds of equity security investments. *(p. D-8)*
4. **Define** parent-subsidiary relationships and **discuss** how their balance sheet data are consolidated. *(p. D-12)*

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INVESTMENTS

Debt and Equity Securities

LO1 **Identify** and **define** the investment categories for debt and equity securities.

The assets of a business may include investments in one or more types of debt or equity securities. For some businesses, such as insurance companies, investments in debt and equity securities constitute the major portion of a company's total assets. Investments in various debt and equity securities, for example, represent approximately 50 percent of the assets of **Aetna Inc.**, a large diversified insurance company and a member of the Fortune 100 companies.

A **debt security** refers to a financial instrument that creates a creditor relationship for the debtholder. Examples of debt securities include U.S. Treasury bills, notes, and bonds; U.S. government agency bonds, such as Fannie Mae and Ginnie Mae bonds; state and local government bonds; corporate bonds; and commercial paper. Bonds are long-term debt securities and are discussed in detail in Chapter 10. Some bonds may not mature for 30 to 40 years, while others may have short maturity periods. Commercial paper, on the other hand, refers to very short-term (1 to 180 days), unsecured promissory notes issued by large corporations.

An **equity security** is a financial instrument that represents an ownership interest in a company. Shares of stock represent ownership interests in a corporation and are discussed in detail in Chapter 11. Investors owning a company's common stock have the most basic ownership rights, whereas owners of a company's preferred stock have some rights that take preference over the common stockholders, such as preferential treatment in the receipt of dividends and the receipt of assets in the event that a company liquidates.

Debt and equity securities may be acquired directly from the entity that issues the securities or through a secondary market. When corporations or government agencies need to borrow, they offer their debt securities for sale to the general public. This process is called floating an issue. When a corporation initially issues (sells) stock to the general public to raise money, the process is called an initial public offering (IPO). When companies need additional cash to fund their operations after initially going public, they may conduct additional sales of their shares through secondary public offerings.

More frequently, investors acquire debt and equity securities through the secondary capital market. The secondary capital market consists of individual and institutional investors desiring to buy or sell securities. Many debt and equity securities are bought and sold on organized exchanges. Stocks and bonds, for example, may trade on a national exchange such as the New York Stock Exchange or the London Stock Exchange. (Despite their names, both exchanges list both bonds and stocks.) Stocks and bonds may also trade in a less formal market known as the over-the-counter market. Both the buyer and seller of a security normally use the services of a brokerage firm, such as **Charles Schwab** or **Fidelity Investments**, to facilitate the acquisition and disposition of their investments.

Investment Categories

For accounting purposes, each debt or equity security is placed in one of five investment categories: **trading securities**, **available-for-sale securities**, **held-to-maturity securities**, **influential securities**, and **controlling securities**. Of these categories, three apply to debt securities and four apply to equity securities. **Exhibit D-1** presents the five investment categories.

The placement of an investment in the proper investment category depends on (1) management's intent with respect to selling the security and (2) the ability to influence or control another entity's activities as a result of an equity investment. Typical evidence of the latter factor is the ownership percentage represented by the equity investment. **Exhibit D-2** defines and explains the five investment categories.

Notice in **Exhibit D-2** that the trading securities and available-for-sale securities categories may include noninfluential equity securities. Noninfluential equity securities refer to stock investments that do not permit the investor to exert significant influence over

Exhibit D-1 **Investment Categories for Debt and Equity Securities**

the policies of the investee company (the company whose stock is acquired). Accountants consider stock investments noninfluential if the quantity of stock purchased is less than 20 percent of a company's outstanding voting (common) stock.

An entity that owns 20 percent or more of a company's outstanding voting stock may exert a significant influence on the operating or financial decisions of that company. However, if 50 percent or less of the total voting stock is owned, the investment does not represent a controlling interest. Voting stock investments in the 20 to 50 percent ownership range, therefore, compose the influential securities category.

When more than 50 percent of a corporation's voting stock is owned, the investor is a majority owner and is in a position to control the operating and financial policies of the investee company. These majority-ownership stock investments are classified as controlling securities.[1]

Exhibit D-2 **Definitions of Investment Categories**

Trading Securities (debt and equity securities)	Debt securities and noninfluential equity securities that management buys with the intent to sell in the near future
Available-for-Sale Securities (debt and equity securities)	Debt securities that management neither intends to sell in the near future nor hold to maturity
	Noninfluential equity securities that management does not intend to sell in the near future
Held-to-Maturity Securities (debt securities only)	Debt securities that management intends to hold to maturity
Influential Securities (equity securities only)	Equity securities that represent a 20 percent through 50 percent ownership of the corporation's voting stock
Controlling Securities (equity securities only)	Equity securities that represent an ownership of more than 50 percent of the corporation's voting stock

Debt and equity investments are placed in one of the five different categories because accounting guidelines differ among the categories. We now review those accounting guidelines, considering debt securities first, followed by equity securities.

Investments in Debt Securities

LO2 **Describe** the accounting for various kinds of debt security investments.

Investments in debt securities are placed in one of three investment categories: trading securities, available-for-sale securities, or held-to-maturity securities. The major accounting events concerning investments in debt securities are their purchase, the recognition of interest income, their balance

[1] The ownership percentages are guidelines only and may be overcome by other factors. In some cases, a company may own more than 20 percent of the outstanding voting shares of another company and still not be able to significantly influence its operating and financial activities. Or, effective control of another entity may exist with less than 50 percent ownership of its voting stock. For example, ownership of a large minority interest (such as 45 percent), with other owners widely dispersed and unorganized, may provide effective control. The key to proper accounting classification is the presence of significant influence on, or effective control over, another entity.

sheet valuation, and their sale or redemption at maturity. **Exhibit D-3** summarizes the accounting guidelines for these events. We will illustrate these guidelines with examples.

Exhibit D-3 Accounting Guidelines for Investments in Debt Securities

	Event/Accounting Guideline	Trading Securities	Available-for-Sale Securities	Held-to-Maturity Securities
1.	**Purchase** Record at cost, which includes any broker's fees.	X	X	X
2.	**Recognition of Interest Income** Interest accrues daily and is usually recorded when payment is received. Premium or discount on purchase price is not amortized.	X		
	Interest accrues daily and is usually recorded when payment is received. Premium or discount on purchase price is amortized as an adjustment of interest income.		X	X
3.	**Balance Sheet Valuation** Measure securities at fair value at balance sheet date. No valuation account to the asset account is used. Changes in fair value are reported in the income statement.	X		
	Measure securities at fair value at balance sheet date. Use a valuation account to the asset account. Changes in fair value are reported in stockholders' equity.		X	
	Measure securities at amortized cost at balance sheet date.			X
4.	**(a) Sale** Sale proceeds less investment's book value is a realized gain or loss.	X		
	Sale proceeds less investment's amortized cost is a realized gain or loss.		X	
	(b) Redemption at Maturity At maturity, the investment's book value will equal the redemption proceeds.			X

Purchase

Assume that the Warner Company purchases $300,000 face value of Natco Company 8 percent bonds at 98 on July 1, 2016. (Recall from Chapter 10 that bond prices are quoted on a basis of $100 while their base value is actually $1,000. Thus, a bond said to sell for 98 is actually selling for $980. And, for a group of bonds with an aggregate maturity value of $100,000, this would imply a selling price of $98,000.) The bonds pay interest on December 31 and June 30 and mature in 10 years. The brokerage commission is $600. Warner's management considers the bond investment to be divided equally between trading securities, available-for-sale securities, and held-to-maturity securities. **Exhibit D-4** shows the entry to record this debt investment. Note that the accounting for the purchase event is the same regardless of the classification of the bond investment.

The Natco Company bonds are purchased the first day after an interest payment date, so there is no unpaid interest related to the bonds. If any more time had elapsed, however, the bond price would include an amount for the accrued but unpaid interest. This occurs because the bond seller is entitled to receive the interest earned up to the date of sale. As a result, the purchase price of a bond that is sold between interest payment dates includes not only the current market price but also any interest accrued since the last interest payment date. (See Chapter 10 for additional discussion regarding the accrual of interest between interest payment dates.) The bond buyer pays the accrued interest amount to the bond seller, debits the amount to the Bond Interest Receivable account, and then collects it as part of the next interest payment received from the bond issuer. Because the accrued interest purchased by the bond buyer is collected with the next interest payment, the accrued interest is not treated as part of the initial cost of the bond investment.

Exhibit D-4 **Purchase of Debt Securities**

2016				
July	1	Bond investment—Trading (Natco)	98,200	
		Bond investment—Available-for-sale (Natco)	98,200	
		Bond investment—Held-to-maturity (Natco)	98,200	
		Cash		294,600
		To record purchase of $300,000 of Natco Company bonds at 98 plus $600 commission [($300,000 × 0.98) + $600 = $294,600].		

A	=	L	+	SE
+98,200				
+98,200				
+98,200				
−294,600				

Recognition of Interest Income

Each $100,000 of Natco Company bonds acquired on July 1, 2016, was purchased at a $1,800 discount ($100,000 – $98,200). This means that the market rate of interest on July 1, 2016 was higher than the 8 percent coupon rate offered on the bonds. For trading securities, any bond discount (or premium) is ignored in accounting for the periodic interest income because management plans to sell the securities in the near future. As such, the effect on net income from ignoring the bond discount (or premium) is immaterial.

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Materiality Concept

Note the role played by the *materiality concept* in determining interest income on trading securities. Because of the short time period that trading securities are held by a company before being resold, accountants do not bother to amortize any discount or premium associated with the debt securities. This simplifies the accounting for these debt securities, yet it causes no significant distortion in the periodic reporting of interest income.

For available-for-sale securitiesv and held-to-maturity securities, any bond discount (or premium) is amortized to interest income. This is done to make periodic interest income more accurately reflect the economic reality of the bond investment. The amortization of bond discount causes the periodic interest income to be higher than the semiannual cash receipt of interest. If the bonds had been purchased at a premium (more than their face value), the premium amortization would cause periodic interest income to be less than the semiannual cash receipt of interest.

Two amortization methods are available for use: the straight-line method and the effective interest method. We use the straight-line method here because the difference in the financial effect between the two methods is immaterial in this case. (See Appendix 10A for a discussion of the effective interest method.) The straight-line method of amortization writes off an equal amount of discount or premium each interest period. The Natco Company bonds, when purchased, had 10 years to maturity, with interest paid semi-annually. Consequently, there are 20 interest periods associated with the bonds. During each interest period, $90 ($1,800/20 periods) of discount will be amortized for the available-for-sale securities and the held-to-maturity securities. Each $100,000 (face value) of Natco bonds pays $4,000 interest semiannually (8 percent × $100,000 × ½ year). The entries to record interest income at December 31, 2016, are shown in **Exhibit D-5**.

Balance Sheet Valuation

Debt securities are interest rate sensitive; that is, as market interest rates change, the market values of debt securities also change. Debt securities that management intends to sell (trading securities) or may sell (available-for-sale securities) are reported on the

Exhibit D-5 **Recognition of Interest Income on Debt Securities**

2016

		Trading Debt Securities			
Dec.	31	Cash	4,000		A = L + SE: +4,000 (A); +4,000 Rev (SE)
		Bond interest income		4,000	
		To record receipt of semiannual interest on $100,000 of trading bonds.			
		Available-for-Sale Debt Securities			
Dec.	31	Cash	4,000		A = L + SE: +4,000, +90 (A); +4,090 Rev (SE)
		Bond investment—Available-for-sale (Natco)	90		
		Bond interest income		4,090	
		To record receipt of semiannual interest and discount amortization on $100,000 of available-for-sale bonds.			
		Held-to-Maturity Debt Securities			
Dec.	31	Cash	4,000		A = L + SE: +4,000, +90 (A); +4,090 Rev (SE)
		Bond investment—Held-to-maturity (Natco)	90		
		Bond Interest Income		4,090	
		To record receipt of semiannual interest and discount amortization on $100,000 of held-to-maturity bonds.			

balance sheet at their current fair value. If available, quoted market prices from one of the national bond exchanges provide the best evidence of a bond's fair value. Year-end adjusting entries are made to record these current fair values. Current fair value is not a relevant measure for debt securities that management intends to hold to maturity. Thus, no adjustment to fair value is made for held-to-maturity securities.

Assume that a general decline in market interest rates causes the Natco Company bonds to trade at 99.5 as of December 31, 2016. (Remember that 99.5 means that a bond is actually selling for $995; and, for a group of bonds with a maturity value of $100,000, this equates to an aggregate selling price of $99,500.) **Exhibit D-6** shows the adjusting entries made on this date to record the relevant fair values.

Exhibit D-6 **Balance Sheet Valuation for Debt Securities**

2016

		Trading Debt Securities			
Dec.	31	Bond investment—Trading (Natco)	1,300		A = L + SE: +1,300 (A); +1,300 Gain (SE)
		Unrealized gain on investments (income)		1,300	
		To adjust trading debt securities to year-end fair value ($99,500 − $98,200 = $1,300 gain).			
		Available-for-Sale Debt Securities			
Dec.	31	Fair value adjustment to bond investment	1,210		A = L + SE: +1,210 (A); +1,210 Comprehensive Income (SE)
		Unrealized gain/loss on investments (equity)		1,210	
		To adjust available-for-sale debt securities to year-end fair value ($99,500 − $98,290 = $1,210 gain).			

Fair value changes in securities that are still owned are called **unrealized gains and losses**. Unrealized gains and losses that relate to trading securities are reported in the income statement. Thus, the $1,300 unrealized gain shown in **Exhibit D-6** is included in Warner's 2016 income statement.

Unrealized gains and losses that relate to available-for-sale securities are excluded from the income statement. Instead, their net amount is reported as a separate component of stockholders' equity called Unrealized Gain/Loss on Investments (Equity). Unrealized Gain/

Loss on Investments is included in comprehensive income that was discussed in Chapter 13 (see page 633). Because these unrealized gains and losses are not included in earnings, the investment's cost must be maintained in the accounts so that a total realized gain or loss can be determined when the investment is actually sold. Using the valuation account Fair Value Adjustment to Bond Investment permits the maintenance of the investment's cost in the Bond Investment—Available for Sale account.[2] After the adjustments shown in **Exhibit D-6**, the December 31, 2016, balance sheet reports the bond investments as follows:

Hint: Although the accounting for debt (and equity) trading securities calls for the recognition of any fair value changes as part of a company's current net income, those unrealized gains or losses are not reported as part of a company's net income for income tax purposes. The IRS does not require the reporting of any gains until they are realized and prohibits the reporting of any losses until realized (when a security is sold).

Bond investment—Trading (fair value)		$99,500
Bond investment—Available-for-sale (cost).	$98,290	
Add: Fair value adjustment to bond investment	1,210	99,500
Bond investment—Held-to-maturity (cost)		98,290

Sale or Redemption at Maturity

To complete our illustration, assume that the trading and available-for-sale bond investments are both sold on July 1, 2017, for $99,800 each (after recognizing interest income on June 30, 2017). The remaining bond investment is held to maturity (June 30, 2026), at which time the issuer redeems the bonds for their maturity value of $100,000. **Exhibit D-7** shows the appropriate journal entries related to these events.

Exhibit D-7 **Sale or Redemption at Maturity of Debt Securities**

2017				
		Trading Debt Securities		
July	1	Cash	99,800	
		Bond investment—Trading (Natco)		99,500
		Gain on sale of investments		300
		To record sale of trading debt securities for $99,800 ($99,800 − $99,500 = $300 realized gain).		
		Available-for-Sale Debt Securities		
July	1	Cash	99,800	
		Bond investment—Available-for-sale (Natco)		98,380
		Gain on sale of investments		1,420
		To record sale of available-for-sale debt securities for $99,800 ($99,800 − $98,380 = $1,420 gain).		
Dec.	31	Unrealized gain/loss on investments (equity)	1,210	
		Fair value adjustment to bond investment		1,210
		To adjust these account balances to zero.		
2026				
		Held-to-Maturity Debt Securities		
June	30	Cash	100,000	
		Bond investment—Held-to-maturity (Natco)		100,000
		To record redemption of bonds at maturity.		

A = L + SE
+99,800 +300 Gain
−99,500

A = L + SE
+99,800 +1,420 Gain
−98,380

A = L + SE
−1,210 −1,210 Comprehensive Income

A = L + SE
+100,000
−100,000

In **Exhibit D-7**, the $300 gain on the sale of the trading securities is the difference between the $99,800 sales proceeds and the last recorded fair value of $99,500. By July 1, 2017, another $90 of discount amortization would have been recorded on the available-for-sale securities, increasing their amortized cost to $98,380 ($98,290 + $90). The $1,420 gain that is recorded on their sale is the difference between the $99,800 sales proceeds and the amortized cost of $98,380. Because all available-for-sale bonds were

[2] The cost of trading securities must be maintained for income tax purposes. A fair value valuation account, therefore, may be used for maintaining the income tax records of trading securities.

sold, the related valuation account and unrealized gain/loss account are adjusted to zero balances at the next financial statement closing date (December 31, 2017). The completion of the discount amortization on the held-to-maturity bonds brings their amortized cost to $100,000 on June 30, 2026. Thus, there is no gain or loss associated with the redemption of the bonds at maturity.

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Investments in Equity Securities

LO3 **Describe** the accounting for various kinds of equity security investments.

Equity security investments fit into one of four categories: trading securities, available-for-sale securities, influential securities, and controlling securities. The major accounting events associated with investments in equity securities are their purchase, the recognition of investment income, their balance sheet valuation, and their sale. **Exhibit D-8** summarizes the accounting guidelines for these events. We will illustrate these guidelines with examples.

Exhibit D-8 **Accounting Guidelines for Investments in Equity Securities**

	Event/Accounting Guideline	Trading Securities	Available-for-Sale Securities	Influential Securities	Controlling Securities
1.	**Purchase** Record at cost, which includes any broker's fees.	X	X	X	X
2.	**Recognition of Investment Income** Record dividend income when dividends are received.	X	X		
	Record equity in investee company's net income as investment income. Decrease investment account for dividends received.			X	X
3.	**Balance Sheet Valuation** Measure securities at fair value at balance sheet date. No valuation account to the investment account is used. Changes in fair value are reported in the income statement.	X			
	Measure securities at fair value at balance sheet date. Use a valuation account to the investment account. Changes in fair value are reported in stockholders' equity.		X		
	Report securities at book value (cost plus share of investee net income less dividends).			X	
	Eliminate investment account as part of consolidation procedures.				X
4.	**Sale** Sale proceeds less investment's book value is a realized gain or loss.	X		X	X
	Sale proceeds less investment's cost is a realized gain or loss.		X		

Purchase

Assume that Warner Company purchases 1,500 shares of common stock in each of four different companies—Ark, Inc.; Bain, Inc.; Carr, Inc.; and Dot, Inc.—on January 1, 2016. Each investment cost $15,000, including broker's fees. The shares acquired represent 10 percent of Ark's voting stock, 10 percent of Bain's voting stock, 25 percent of Carr's voting stock, and 60 percent of Dot's voting stock.[3] Only the Ark investment is considered by management to be a trading security. Thus, each of these stock investments is placed in a different category. **Exhibit D-9** presents the journal entry to record the purchase of these investments. Note that each stock investment is recorded at its acquisition cost.

Exhibit D-9 **Purchase of Equity Securities**

A	=	L	+	SE
+15,000				
+15,000				
+15,000				
+15,000				
−60,000				

2016				
Jan.	1	Stock investment—Trading (Ark)	15,000	
		Stock investment—Available-for-sale (Bain)	15,000	
		Stock investment—Influential (Carr)	15,000	
		Stock investment—Controlling (Dot)	15,000	
		Cash		60,000
		To record purchase of 1,500 shares each of Ark, Inc., Bain, Inc., Carr, Inc., and Dot, Inc., common stock for $60,000 ($15,000 for each investment), including broker's fees.		

Recognition of Investment Income

Now assume that each of the four companies earns net income of $10,000 in 2016; and, that each company also declares a cash dividend of $0.50 per share, which is received by Warner on December 31, 2016. **Exhibit D-10** shows the journal entries to record this information.

As shown in **Exhibit D-10**, the dividends of $750 received on both the Ark and Bain investments are reported as Dividend Income. This is the proper treatment for cash dividends received on trading securities (Ark) and available-for-sale securities (Bain).

When the percentage ownership of voting stock reaches 20 percent or more, as is the case with the investment in Carr stock, the **equity method** of accounting is used. Under the equity method, the investor company records as income or loss its proportionate share of the net income or net loss reported for the period by the investee company (Carr), with an offsetting debit or credit going to the Stock Investment account. In addition, the receipt of any cash dividends from the investee company reduces the Stock Investment account. The equity method prevents an investor company from manipulating its own income by the influence it can exercise on the dividend policies of the investee company.

In **Exhibit D-10**, the equity method is used for the Carr stock investment (25 percent ownership) and Dot stock investment (60 percent ownership). At December 31, 2013, the Income from Stock Investments account and the Carr Stock Investment account are increased by 25 percent of Carr's 2016 net income (25 percent × $10,000 = $2,500). The receipt of the $750 cash dividend from Carr reduces the Carr Stock Investment account. Similarly, the equity method causes a $6,000 increase (60 percent × $10,000 net income) in both the Income from Stock Investments account and the Dot Stock Investment account at December 31, 2016. The $750 cash dividend received from Dot decreases the Dot Stock Investment account.

A.K.A. Stock investments involving ownership interests of 20 to 50 percent of the outstanding voting shares are often referred to as *affiliate companies*.

Balance Sheet Valuation

The balance sheet valuations for equity trading securities and available-for-sale securities are handled in the same manner as the corresponding debt securities. Year-end adjusting entries are made to record these equity securities at their current fair value, with quoted market prices from established exchanges like the New York and London stock exchanges, being the best evidence of a stock's current fair value.

[3] We assume that the cost of the investments in Carr and Dot are equal to the book value of the underlying net assets of the investee company. This assumption permits us to simplify the illustration of the accounting for these two investments.

Exhibit D-10 **Recognition of Investment Income on Equity Securities**

2016		Account	Debit	Credit	A = L + SE
		Trading Equity Securities			
Dec.	31	Cash	750		
		Dividend income		750	A +750 = L + SE +750 Rev
		To record receipt of cash dividend from Ark, Inc.			
		Available-for-Sale Equity Securities			
Dec.	31	Cash	750		
		Dividend income		750	A +750 = L + SE +750 Rev
		To record receipt of cash dividend from Bain, Inc.			
		Influential Equity Securities			
Dec.	31	Stock investment—Influential (Carr)	2,500		
		Income from stock investments		2,500	A +2,500 = L + SE +2,500 Rev
		To record as income 25% of Carr's 2016 net income of $10,000 (investment balance = $17,500).			
Dec.	31	Cash	750		
		Stock investment—Influential (Carr)		750	A +750 −750 = L + SE
		To record receipt of cash dividend from Carr, Inc. (investment balance = $16,750).			
		Controlling Equity Securities			
Dec.	31	Stock investment—Controlling (Dot)	6,000		
		Income from stock investments		6,000	A +6,000 = L + SE +6,000 Rev
		To record as income 60% of Dot's 2016 net income of $10,000 (investment balance = $21,000).			
Dec.	31	Cash	750		
		Stock investment—Controlling (Dot)		750	A +750 −750 = L + SE
		To record receipt of cash dividend from Dot, Inc. (investment balance = $20,250).			

Objectivity Principle — **PRINCIPLE ALERT**

The standard to measure equity trading securities and available-for-sale securities at current fair value applies only to equity securities that have readily determinable fair values. It does not apply to equity investments that would create significant valuation problems, such as equity investments in closely held companies whose shares do not trade on an established stock exchange. This represents an application of the *objectivity principle*, which states that accounting entries should be based on objectively determined evidence.

Assume that at December 31, 2016, the fair values of 1,500 shares of Ark common stock and Bain common stock are each $23,000. **Exhibit D-11** shows the adjusting entries made on this date to record the relevant fair values.

As is true with debt securities, the $8,000 unrealized gain shown in **Exhibit D-11** on the trading securities (Ark) is reported in Warner's 2016 income statement, whereas the $8,000 unrealized gain on the available-for-sale securities (Bain) is reported in the stockholders' equity section of the balance sheet of the Warner Company. The valuation account for the Bain stock investment plays the same role as discussed earlier in the accounting for debt securities; it permits the security's cost basis to be maintained in the Stock Investment—Available for Sale account.

Stock investments accounted for by the equity method are not measured at year-end fair values. The year-end account balances remain as calculated using the equity method—that is, $16,750 for the Carr investment and $20,250 for the Dot investment. For controlling investments, the financial statements of the investee company are usually consolidated with the statements of the investor company; consequently, the investment account does not appear in the consolidated statements.

Exhibit D-11 **Balance Sheet Valuation for Equity Securities**

2016

Equation effect	Date		Account	Debit	Credit
			Trading Equity Securities		
A = L + SE; +8,000; +8,000 Gain	Dec.	31	Stock investment—Trading (Ark)	8,000	
			Unrealized gain on investments (income)		8,000
			To adjust trading stock securities to year-end fair value of $23,000 ($23,000 − $15,000 = $8,000 gain).		
			Available-for-Sale Equity Securities		
A = L + SE; +8,000; +8,000 Comprehensive Income	Dec.	31	Fair value adjustment to stock investment	8,000	
			Unrealized gain/loss on investments (equity)		8,000
			To adjust available-for-sale equity securities (Bain) to year-end fair value of $23,000 ($23,000 − $15,000 = $8,000 gain).		

Sale

To complete our illustration, assume that all four stock investments are sold on July 1, 2017. Each of the stock investments is sold for $22,000. **Exhibit D-12** shows the journal entries related to these events. As shown in **Exhibit D-12**, each sale generates a different gain or loss. Even though the basic events relating to each of the stock investments were the same, the accounting guidelines result in quite different analyses.

Exhibit D-12 **Sale of Equity Securities**

2017

Equation effect	Date		Account	Debit	Credit
			Trading Equity Securities		
A = L + SE; +22,000; −23,000; −1,000 Loss	July	1	Cash	22,000	
			Loss on sale of investments	1,000	
			Stock investment—Trading (Ark)		23,000
			To record sale of trading equity securities for $22,000 ($22,000 − $23,000 = $1,000 loss).		
			Available-for-Sale Equity Securities		
A = L + SE; +22,000; −15,000; +7,000 Gain	July	1	Cash	22,000	
			Stock investment—Available-for-sale (Bain)		15,000
			Gain on sale of investments		7,000
			To record sale of available-for-sale equity securities for $22,000 ($22,000 − $15,000 = $7,000 gain).		
A = L + SE; −8,000; −8,000 Comprehensive Income	Dec.	31	Unrealized gain/loss on investments (equity)	8,000	
			Fair value adjustment to stock investment		8,000
			To adjust these account balances to zero.		
			Influential Equity Securities		
A = L + SE; +22,000; −16,750; +5,250 Gain	July	1	Cash	22,000	
			Stock investment—Influential (Carr)		16,750
			Gain on sale of investments		5,250
			To record sale of influential equity securities for $22,000 ($22,000 − $16,750 = $5,250 gain).		
			Controlling Equity Securities		
A = L + SE; +22,000; −20,250; +1,750 Gain	July	1	Cash	22,000	
			Stock investment—Controlling (Dot)		20,250
			Gain on sale of investments		1,750
			To record sale of controlling equity securities for $22,000 ($22,000 − $20,250 = $1,750 gain).		

Because all available-for-sale stock was sold, the second entry in **Exhibit D-12** for the Bain stock investment eliminates the balances in the related valuation account and unrealized gain/loss account at the next adjustment date (December 31, 2017).

THINKING GLOBALLY

In some countries where there are not actively traded markets for debt and equity securities, the balance sheet valuation of debt and equity securities is often at the original acquisition cost of an investment. In other countries, where actively traded markets for securities do exist, a variant of the current fair value approach used under U.S. GAAP, called the lower-of-cost-or-market method, may be used. Under the lower-of-cost-or-market method, a debt or equity security is valued at the lower of two values—its current fair value or its original acquisition cost. When a security's current fair value falls below its acquisition cost, the security's carrying value is written down to the lower amount and an unrealized loss is reported as part of the company's current income.

Current and Noncurrent Classifications

Each investment in debt and equity securities must be classified as either a current asset or a noncurrent asset in the balance sheet. Trading securities are always classified as current assets. Held-to-maturity securities are classified as noncurrent assets until the last year before maturity. Available-for-sale securities may be classified as either current or noncurrent assets, depending on management's intentions regarding their sale. Influential investments are usually classified as noncurrent assets, but a current classification is proper if management intends to sell the investments within the next year or operating cycle, whichever is longer. As mentioned earlier, controlling investments do not appear in consolidated financial statements as a separate account but rather are "consolidated" into the accounts of the parent company.

ACCOUNTING IN PRACTICE

Cherry Picking

The treatment of unrealized gains and losses on available-for-sale investments permits management to engage in a practice known as "cherry picking." Management may select for sale those available-for-sale securities that have unrealized gains, thereby converting the unrealized gains into realized gains that appear in the company's income statement. Similarly, available-for-sale investments having unrealized losses are not sold, thereby keeping the losses out of the income statement and on the company's balance sheet instead. Cherry picking is a management behavior fostered by accounting principles. Many observers believe that it is a practice that gives management too much control over income statement results.

PARENT-SUBSIDIARY RELATIONSHIP

eLectures MBC

LO4 **Define** parent-subsidiary relationships and **discuss** how their balance sheet data are consolidated.

A corporation that controls another corporation through ownership of a company's voting stock is known as a **holding company**. Control over another corporation is ensured through ownership of all or a majority of the investee's voting stock. Another name for a holding company is **parent company**, and the wholly owned or majority-held investees are called **subsidiaries**. The parent company and each subsidiary company are separate legal entities.

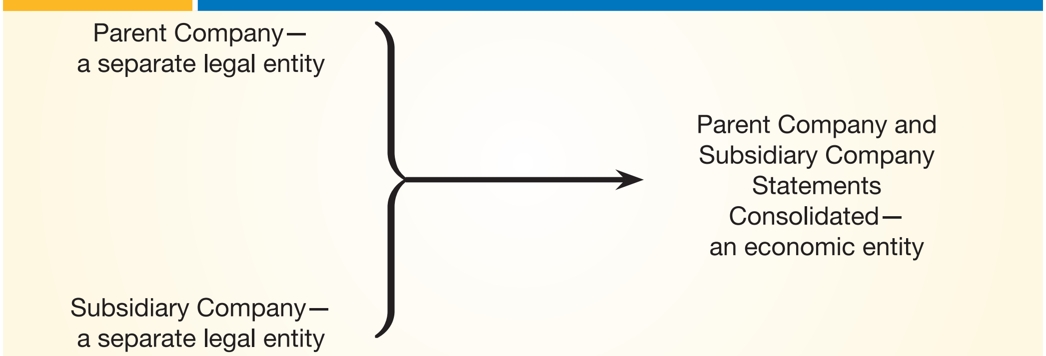
Consolidated Financial Statements

As separate legal entities, a parent company and its subsidiaries maintain their own accounting records and prepare separate financial statements primarily for internal purposes. In the parent company's separate financial statements, the ownership of a subsidiary's stock is reported as a stock investment accounted for by the equity method. When the parent company prepares financial statements for its stockholders and creditors, however, the financial statements of the parent company and its subsidiaries are combined and reported as a single set of **consolidated financial statements**.

Under consolidated accounting, the individual line item (stock investment – controlling) used to account for an investment in a subsidiary under the equity method is replaced by all the individual asset and liability accounts of the consolidated subsidiary. In other words, the cash account of the subsidiary is combined with the cash account of the parent, the accounts receivable of the subsidiary is combined with the accounts receivable of the parent, the accounts payable of the subsidiary is combined with the accounts payable of the parent, and so on. The financial statements of a parent company and its various subsidiaries are combined using what is known as the acquisition method. When the financial data of these legal entities are consolidated, the resulting statements represent the group as an economic entity, as shown in **Exhibit D-13**.

Consolidated financial statements are prepared to avoid the problem of information overload in which investors and investment professionals receive more financial data than can be purposely processed. For example, the **General Electric Company** is made up of over 2,000 companies worldwide. A shareholder of General Electric would be overwhelmed to receive 2,000 individual company balance sheets, 2,000 individual company income statements, and 2,000 individual company statements of cash flows. Consolidated financial statements avoid this data problem for financial statement users by providing a single set of financial data for the economic entity.

Exhibit D-13 **Parent-Subsidiary Relationship: Legal and Economic Entities**



Consolidated financial statements present both the total assets controlled by a parent company and the aggregate results of the group's operations and cash flows. These amounts are difficult to perceive when viewing only the separate reports of the individual companies. Consolidated statements are particularly valuable to the managers and stockholders of the parent company. In addition, creditors, government agencies, and the general public are informed of the magnitude and scope of an economic enterprise through consolidated statements.

PRINCIPLE ALERT

Accounting Entity Concept

The preparation of consolidated financial statements represents an application of the *accounting entity concept*. By viewing the parent company and its subsidiaries as a single economic entity, accountants ignore the legal boundaries of the separate companies. For consolidated financial statements, the overall economic entity is the accounting entity.

Limitations of Consolidated Statements

Consolidated statements have certain limitations. The status or performance of weak subsidiaries in a group can be "masked" through consolidation with more successful subunits. Rates of return, other ratios, and trend percentages calculated from consolidated statements may sometimes prove deceptive because they are really composite calculations.

Stockholders and creditors of controlled companies who are interested in their legal rights and prerogatives should examine the separate financial statements of the relevant constituent companies.

Supplemental disclosures do improve the quality of consolidated statements, particularly those of conglomerates—that is, entities with diversified lines of business. U.S. GAAP stipulates that firms disclose information regarding revenues, income from operations, and identifiable assets for significant business segments.

SUMMARY OF LEARNING OBJECTIVES

Identify and define the investment categories for debt and equity securities. (p. D-2) **LO1**

- Debt and equity security investments are placed in one of five investment categories:
  - *a.* *Trading security,* a debt or equity security that management buys with the intent to sell in the near future.
  - *b.* *Held-to-maturity security,* a debt security that management intends to hold to maturity.
  - *c.* *Available-for-sale security,* a debt security that management neither intends to sell in the near future nor hold to maturity or a noninfluential equity security that management does not intend to sell in the near future.
  - *d.* *Influential security,* an equity security investment that represents a 20 to 50 percent ownership of a company's voting stock.
  - *e.* *Controlling security,* an equity security investment that represents an ownership of more than 50 percent of a company's voting stock.

Describe the accounting for various kinds of debt security investments. (p. D-3) **LO2**

- Debt trading securities are initially recorded at their acquisition cost, and interest income is recorded when received. The securities are reported at current fair value on the balance sheet with fair value changes reported on the income statement. When sold, the difference between the sales proceeds and the investment's book value is a realized gain or loss.
- Debt available-for-sale securities are initially recorded at their acquisition cost. Interest income is recorded when received, with any premium or discount amortized as an adjustment to interest income. The securities are reported at current fair value on the balance sheet with fair value changes reported in stockholders' equity. When sold, the difference between the sales proceeds and the investment's amortized cost is a realized gain or loss.
- Debt held-to-maturity securities are initially recorded at their acquisition cost. Interest income is recorded when received, with any premium or discount amortized as an adjustment to interest income. The securities are reported at amortized cost at the balance sheet date. At maturity, the investment's book value equals the redemption proceeds.

Describe the accounting for various kinds of equity security investments. (p. D-8) **LO3**

- Equity trading securities are initially recorded at their acquisition cost, and dividend income is recorded when received. The securities are reported at current fair value on the balance sheet with fair value changes reported on the income statement. When sold, the difference between the sales proceeds and the investment's book value is a realized gain or loss.
- Equity available-for-sale securities are initially recorded at their acquisition cost. Dividend income is recorded when received. The securities are reported at current fair value on the balance sheet with fair value changes reported in stockholders' equity. When sold, the difference between the sales proceeds and the investment's cost is a realized gain or loss.
- Equity influential securities are initially recorded at their acquisition cost. Subsequent accounting uses the equity method: the investment account is increased by a proportionate share of the investee company's net income and decreased by the amount of any dividends received. When sold, the difference between the sales proceeds and the investment's book value is a realized gain or loss.
- Equity controlling securities are initially recorded at their acquisition cost. Subsequent accounting uses the equity method: the investment account is increased by a proportionate share of the investee company's net income and decreased by the amount of any dividends received. For financial reporting, however, the investment account is replaced by a subsidiary's individual assets and liabilities, producing consolidated financial statements. When sold, the difference between the sales proceeds and the investment's book value is a realized gain or loss.

LO4 **Define parent-subsidiary relationships and discuss how their balance sheet data are consolidated. (p. D-12)**

- A corporation that controls another corporation (the investee) by virtue of owning all, or a majority, of the investee's common stock is referred to as the parent company. The wholly owned or majority-owned investee is called the subsidiary.
- When a parent company prepares financial statements for its stockholders, the financial statements of the parent and its subsidiaries are combined and reported as a single set of consolidated financial statements.

KEY TERMS

Affiliate companies (p. D-9)
Available-for-sale securities (p. D-2)
Consolidated financial statements (p. D-12)
Controlling securities (p. D-2)
Debt security (p. D-2)
Equity method (p. D-9)
Equity security (p. D-2)
Held-to-maturity securities (p. D-2)
Holding company (p. D-12)
Influential securities (p. D-2)
Parent company (p. D-12)
Subsidiaries (p. D-12)
Trading securities (p. D-2)
Unrealized gains and losses (p. D-6)

Assignments with the MBC logo in the margin are available in myBusinessCourse. See the Preface of the book for details.

SELF-STUDY QUESTIONS

(Answers to the Self-Study Questions are at the end of the chapter.)

LO2 Homework MBC **1. Snyder, Inc., purchased $100,000 of Dane Company's 8 percent, 15 year, bonds for $96,400 on January 1. Snyder plans to hold the bonds to maturity. Snyder records interest and straight-line amortization on interest dates (June 30 and December 31). At December 31, the bonds have a market value of $97,200. Snyder's balance sheet at December 31 should report the bonds at:**

a. $96,400.
b. $96,640.
c. $97,200.
d. $96,160.

LO3 Homework MBC **2. A firm purchased noninfluential and noncontrolling stock investments for $65,000. The firm does not intend to sell the investments in the near future. During the year, the firm received dividends totaling $4,000 from these stock investments. At year-end, the stock portfolio had a quoted market value of $68,000. The increase in net income for the year (ignore income taxes) from these stock investments is:**

a. $1,000.
b. $3,000.
c. $4,000.
d. $7,000.

LO3 Homework MBC **3. Artway Company purchased 30 percent of the voting stock of Barton Company for $60,000 on January 1. During the year, Barton Company earned $50,000 net income and paid $15,000 in dividends. At the end of the year, Artway Company's account, Stock Investment—Influential (Barton) should have a balance of:**

a. $110,000.
b. $70,500.
c. $95,000.
d. $60,000.

LO1 Homework MBC **4. The proper category to classify an investment in equity securities depends on:**

a. management's intentions with regard to when to sell the investment.
b. the relative size of the investment to the purchasing company's total assets.
c. the ability of the purchasing company to influence the investee company.
d. both *a* and *c*.

5. **Where would the account unrealized gain/loss on investment appear for trading security investment?** LO3
   a. Income Statement
   b. Equity section of the Balance Sheet
   c. Statement of Cash Flows
   d. It does not appear on any statement.

6. **Where would the account unrealized gain/loss on investment appear for an available-for-sale security investment?** LO3
   a. Income Statement
   b. Equity section of the Balance Sheet
   c. Statement of Cash Flows
   d. It does not appear on any statement.

7. **Controlling securities typically require the investor to acquire what percent of the investee company common stock?** LO1
   a. Under 20 percent
   b. Between 20 and 50 percent
   c. Over 50 percent
   d. 100 percent

8. **Jeffrey Company invested in debt securities. Jeffrey will initially record this investment at:** LO2
   a. Cost
   b. Cost plus any accrued interest
   c. Cost less any accrued interest
   d. Maturity value

9. **Franz Co. acquired a 30% interest in Esik for $420,000 and appropriately applied the equity method. During the first year, Esik reported net income of $200,000 and paid cash dividends totaling $50,000. What amount will Franz report as it relates to the investment at the end of the first year on its income statement?** LO3
   a. Investment earnings totaling $60,000
   b. Investment earnings totaling $45,000
   c. Net investment earnings totaling $150,000
   d. Dividend income totaling $15,000

10. **Blanc Co. received dividends from its common stock investments during the year ended December 31 as follows:** LO3
    - A cash dividend totaling $15,000 from its trading security investment in Fisher Corporation, when the market price of Fisher's shares was $20 per share
    - A cash dividend of $10,000 from Myler Corp. in which Blanc Co. owns a 32% interest

    How much dividend income should Blanc report in its income statement?
    a. $25,000
    b. $15,000
    c. $10,000
    d. $ 0

11. **At what value are held-to-maturity debt securities reported on the balance sheet?** LO2
    a. Acquisition cost
    b. Market value
    c. Amortized cost
    d. Historical cost adjusted for a proportionate share of the affiliate's earnings, losses, and dividends

12. **Norma Travel, Inc., acquired an 80% interest in CruisesByBen on December 31 for $870,000. Norma has the ability to exercise significant influence on management decisions. The CruisesByBen stock is publicly traded. During the year, CruisesByBen reported net income of $160,000 and paid cash dividends of $40,000. How should Norma Travel account for its investment in CruisesByBen?** LO4
    a. Apply the equity method and report the investment at market value at year end
    b. Apply the equity method and perform a full consolidation
    c. Apply mark-to-market accounting and consolidate the statements at year end
    d. Account for the investment as a trading security

LO1 Homework MBC

13. In classifying investments, how do held-to-maturity securities differ from other marketable securities?
   a. The investor plans to hold the securities until they mature.
   b. The investor has the ability to exercise significant influence over management of the investee.
   c. The investor has the ability to control the investee.
   d. These securities have a high degree of liquidity.

QUESTIONS

1. Debt security investments are placed in one of three investment categories. What are these three categories?

2. Equity security investments are placed in one of four investment categories. What are these four categories?

3. Caldwell Company invests in bonds at a premium. Caldwell does not intend to sell the bonds in the near future, nor does it intend to hold the bonds to maturity. Should the bond premium be amortized? What measure should be used to report these bonds on the company's year-end balance sheet?

4. What measure should be used to report trading securities on the balance sheet? Available-for-sale securities? Held-to-maturity securities?

5. What is an unrealized gain? Unrealized loss?

6. Where are unrealized gains and losses related to trading securities reported in the financial statements? Where are unrealized gains and losses related to available-for-sale securities reported in the financial statements?

7. What is an influential stock investment? Describe the accounting procedures used for such investments.

8. On January 1, Mower Company purchased 40 percent of the common stock of Starr Company for $250,000. During the year, Starr reported $80,000 of net income and paid $60,000 in cash dividends. At year-end, what amount should appear on Mower's balance sheet for its investment in Starr?

9. What accounting procedures are used when a stock investment represents more than 50 percent of the investee company's voting stock?

10. What is the purpose of consolidated financial statements?

11. What are the inherent limitations of consolidated financial statements?

EXERCISES—SET A

LO2 Homework MBC

ED-1A. Accounting for Debt Securities—Trading Gressens Company had the following transactions and adjustments related to a bond investment:

2016
Oct. 1 Purchased $500,000 face value of Skyline, Inc.'s 7 percent bonds at 97 plus a brokerage commission of $1,000. The bonds pay interest on September 30 and March 31 and mature in 20 years. Gressens expects to sell the bonds in the near future.
Dec. 31 Made the adjusting entry to record interest earned on investment in the Skyline bonds.
31 Made the adjusting entry to record the current fair value of the Skyline bonds. At December 31, the market value of the Skyline bonds was $490,000.
2017
Mar. 31 Received the semiannual interest payment on investment in the Skyline bonds.
Apr. 1 Sold the Skyline bond investment for $492,300 cash.

Record the transactions and adjustments of the Gressens Company using journal entries.

LO2 Homework MBC

ED-2A. Accounting for Debt Securities—Available-for-Sale Hilyn Company had the following transactions and adjustments related to a bond investment:

2016
Jan. 1 Purchased $800,000 face value of Cynad, Inc.'s 9 percent bonds at 99 plus a brokerage commission of $1,400. The bonds pay interest on June 30 and December 31 and mature in 15 years. Hilyn does not expect to sell the bonds in the near future, nor does it intend to hold the bonds to maturity.

June 30 Received the semiannual interest payment on the Cynad bonds and amortized the bond discount for six months. Hilyn uses the straight-line method to amortize bond discounts and premiums.
Dec. 31 Received the semiannual interest payment on the Cynad bonds and amortized the bond discount for six months.
31 Made the adjusting entry to record the current fair value of the Cynad bonds. At December 31, the market value of the Cynad bonds was $790,000.
2017
June 30 Received the semiannual interest payment on the Cynad bonds and amortized the bond discount for six months.
July 1 Sold the Cynad bond investment for $792,500 cash.
Dec. 31 Made the adjusting entry to eliminate balances from the Fair Value Adjustment to Bond Investment account and the Unrealized Gain/Loss on Investments (Equity) account.

Record the transactions and adjustments of Hilyn Company using journal entries.

ED-3A. Accounting for Debt Securities—Held-to-Maturity Kurl Company had the following transactions and adjustments related to a bond investment: **LO2**

Homework MBC

2016
Jan. 1 Purchased $600,000 face value of Sphere, Inc.'s 9 percent bonds at 102 plus a brokerage commission of $900. The bonds pay interest on June 30 and December 31 and mature in 10 years. Kurl expects to hold the bonds to maturity.
June 30 Received the semiannual interest payment on the Sphere bonds and amortized the bond premium for six months. Kurl uses the straight-line method to amortize bond discounts and premiums.
2025
Dec. 31 Received the semiannual interest payment on the Sphere bonds and amortized the bond premium for six months.
31 Received the principal amount in cash on maturity date of the Sphere bonds.

Record the transactions and adjustments of Kurl Company using journal entries.

ED-4A. Accounting for Equity Securities—Trading The Glass Company had the following transactions and adjustment related to a stock investment: **LO3**

Homework MBC

2016
Nov. 15 Purchased 6,000 shares of Erie, Inc.'s common stock at $12 per share plus a brokerage commission of $750. Glass expects to sell the stock in the near future.
Dec. 22 Received a cash dividend of $1.10 per share of common stock from Erie.
31 Made the adjusting entry to reflect year-end fair value of the stock investment in Erie. The year-end market price of the Erie common stock is $11.25 per share.
2017
Jan. 20 Sold all 6,000 shares of the Erie common stock for $66,900.

Record the transactions and adjustment of the Glass Company using journal entries.

ED-5A. Accounting for Equity Securities—Available-for-Sale Refer to the data for the Glass Company in ED-4A. Assume that when the shares were purchased, management did not intend to sell the stock in the near future. Record the transactions and adjustment for Glass Company under this assumption using journal entries. In addition, prepare any adjusting entry needed at December 31, 2017. **LO3**

Homework MBC

ED-6A. Accounting for Equity Securities—Influential The Dunn Company had the following transactions and adjustment related to a stock investment: **LO3**

Homework MBC

2016
Jan. 15 Purchased 12,000 shares of Van, Inc.'s common stock at $9 per share plus a brokerage commission of $900. These shares represent a 30 percent ownership of Van's common stock.
Dec. 31 Received a cash dividend of $1.25 per share of common stock from Van.
31 Made the adjusting entry to reflect income from the Van stock investment. Van's 2016 net income is $80,000.

2017
Jan. 20 Sold all 12,000 shares of the Van common stock for $120,500.

Record the transactions and adjustment of the Dunn Company using journal entries.

LO3 **ED-7A. Accounting for Equity Securities** On March 15, Kat Corp. purchased 200 shares of common stock of Scott Company for $15 per share. Kat Corp. is not able to exercise significant influence over Scott. On December 31, the market value of the Scott stock was $14.00 per share. Kat Corp. plans to hold the stock for the unforeseeable future.

a. Upon the purchase of the Scott stock, how should Kat Corp. classify the shares on its balance sheet? Justify your answer.
b. Record all transactions necessary for Kat.

LO3 **ED-8A Recording Influential Securities** On January 3, Mahony Farm purchased 20% of the outstanding stock of Flepo Company for $80,000. The purchase gave Mahony the ability to exercise significant influence over Flepo. During the year, Flepo paid cash dividends totaling $70,000 and reported net income for the year of $90,000.

Record all transactions necessary for Mahony Farm.

LO3 **ED-9A. Accounting for Equity Securities** Microsoft, Inc., maintained a large investment in marketable securities valued at approximately $42 billion as of the beginning of the year. During the year, the securities produced investment income (dividends and interest income) totaling $2 billion. At year-end, the portfolio of marketable securities had appreciated to $43.5 billion.

Calculate the income statement effect of the marketable securities if:

1. The entire portfolio is classified as trading securities.
2. The entire portfolio is classified as available-for-sale securities.

LO4 **ED-10A. Consolidation Accounting** Fletcher Company, a manufacturer of precision mining equipment, acquired 100 percent of the outstanding common stock of Denfork Company, a small mining company with several mines that extract rare earth materials.

a. How should Fletcher account for this acquisition during the year?
b. What adjustments are needed at year-end?
c. What limitations are present in this method of accounting?

EXERCISES—SET B

LO2 Homework MBC **ED-1B. Accounting for Debt Securities—Trading** Sanders, Inc. had the following transactions and adjustments related to a bond investment:

2016
Nov. 1 Purchased $300,000 face value of Batem, Inc.'s 9 percent bonds at 102 plus a brokerage commission of $900. The bonds pay interest on October 31 and April 30 and mature in 15 years. Sanders expects to sell the bonds in the near future.
Dec. 31 Made the adjusting entry to record interest earned on investment in the Batem bonds.
31 Made the adjusting entry to record the current fair value of the Batem bonds. At December 31, the market value of the Batem bonds was $301,500.
2017
Apr. 30 Received the semiannual interest payment on investment in the Batem bonds.
May 1 Sold the Batem bond investment for $300,900 cash.

Record the transactions and adjustments of the Sanders Company using journal entries.

LO2 Homework MBC **ED-2B. Accounting for Debt Securities—Available-for-Sale** The Witt Company had the following transactions and adjustments related to a bond investment:

2016
Jan. 1 Purchased $600,000 face value of Chevy, Inc.'s 8 percent bonds at 101 plus a brokerage commission of $1,400. The bonds pay interest on June 30 and December 31 and mature in 10 years. Witt does not expect to sell the bonds in the near future, nor does it intend to hold the bonds to maturity.

June	30	Received the semiannual interest payment on the Chevy bonds and amortized the bond premium for six months. Witt uses the straight-line method to amortize bond discounts and premiums.
Dec.	31	Received the semiannual interest payment on the Chevy bonds and amortized the bond premium for six months.
Dec.	31	Made the adjusting entry to record the current fair value of the Chevy bonds. At December 31, the market value of the Chevy bonds was $609,000.
2017		
June	30	Received the semiannual interest payment on the Chevy bonds and amortized the bond premium for six months.
July	1	Sold the Chevy bond investment for $608,500 cash.
Dec.	31	Made the adjusting entry to eliminate balances from the Fair Value Adjustment to Bond Investment account and the Unrealized Gain/Loss on Investments (Equity) account.

Record the transactions and adjustments of the Witt Company using journal entries.

ED-3B. Accounting for Debt Securities—Held-to-Maturity The Shepler Company had the following transactions and adjustments related to a bond investment: **LO2**

Homework MBC

2016		
Jan.	1	Purchased $250,000 face value of Lowe, Inc.'s 6 percent bonds at 98 plus a brokerage commission of $500. The bonds pay interest on June 30 and December 31 and mature in 15 years. Shepler expects to hold the bonds to maturity.
June	30	Received the semiannual interest payment on the Lowe bonds and amortized the bond discount for six months. Shepler uses the straight-line method to amortize bond discounts and premiums.
2030		
Dec.	31	Received the semiannual interest payment on the Lowe bonds and amortized the bond discount for six months.
	31	Received the principal amount in cash on maturity date of the Lowe bonds.

Record the transactions and adjustments of the Shepler Company using journal entries.

ED-4B. Accounting for Equity Securities—Trading The Dale Company had the following transactions and adjustment related to a stock investment: **LO3**

Homework MBC

2016		
Nov.	15	Purchased 5,000 shares of Lake, Inc.'s common stock at $16 per share plus a brokerage commission of $900. Dale Company expects to sell the stock in the near future.
Dec.	22	Received a cash dividend of $1.25 per share of common stock from Lake.
	31	Made the adjusting entry to reflect year-end fair value of the stock investment in Lake. The year-end market price of the Lake common stock is $17.50 per share.
2017		
Jan.	20	Sold all 5,000 shares of the Lake common stock for $86,400.

Record the transactions and adjustment of the Dale Company using journal entries.

ED-5B. Accounting for Equity Securities—Available-for-Sale Refer to the data for Dale Company in ED-4B. Assume that when the shares were purchased, management did not intend to sell the stock in the near future. Record the transactions and adjustment for Dale Company under this assumption using journal entries. In addition, prepare any adjusting entry needed at December 31, 2017. **LO3**

Homework MBC

ED-6B. Accounting for Equity Securities—Influential The Prince Company had the following transactions and adjustment related to a stock investment: **LO3**

Homework MBC

2016		
Jan.	15	Purchased 15,000 shares of Park, Inc.'s common stock at $8 per share plus a brokerage commission of $1,000. These shares represent a 25 percent ownership of the Park common stock.
Dec.	31	Received a cash dividend of $0.80 per share of common stock from Park.
	31	Made the adjusting entry to reflect income from the Park stock investment. Park's 2016 net income is $120,000.

2017
Jan. 20 Sold all 15,000 shares of the Park common stock for $132,000.

Record the above transactions for the Prince Company using journal entries.

LO3 **ED-7B. Accounting for Equity Securities** On March 15, Kit Corp. purchased 400 shares of common stock of Murat Company for $25 per share. Kit Corp. is not able to exercise significant influence over Murat. On December 31, the market value of the Murat stock was $27.00 per share. Kat Corp. plans to sell the stock soon.

a. Upon the purchase of the Murat stock, how should Kit Corp. classify the shares on its balance sheet? Justify your answer.
b. Record all transactions necessary for Kit.

LO3 **ED-8B. Recording Influential Securities** On January 3, Negrito Farm purchased 25% of the outstanding stock of Philip Company for $90,000. The purchase gave Negrito the ability to exercise significant influence over Philip. During the year, Philip paid cash dividends totaling $80,000 and reported net income for the year of $100,000.

Record all transactions necessary for Negrito Farm.

LO3 **ED-9B. Accounting for Equity Securities**
Macroview, Inc., maintained a large investment in marketable securities valued at approximately $60 billion as of the beginning of the year. During the year, the securities produced investment income (dividends and interest income) totaling $3 billion. At year-end, the portfolio of marketable securities had appreciated to $64.5 billion.

Calculate the income statement effect of the marketable securities if:

1. The entire portfolio is classified as trading securities
2. The entire portfolio is classified as available-for-sale securities

LO4 **ED-10B. Consolidation Accounting** Peyton Company, a manufacturer of silicon chips, acquired 100 percent of the outstanding common stock of Visik Company, a small manufacturer of mobile computing devices.

a. How should Peyton account for this acquisition during the year?
b. What adjustments are needed at year-end?
c. What limitations are present in this method of accounting?

PROBLEMS—SET A

LO2 Homework MBC **PD-1A. The Analysis of Bond Investments** Columbia Company began operations in 2016 and by year-end (December 31) had made six bond investments. Year-end information on these bond investments follows:

Company	Face Value	Cost or Amortized Cost	Year-End Market Value	Classification
Ling, Inc.	$100,000	$102,400	$105,300	Trading
Wren, Inc.	$250,000	$262,500	$270,000	Trading
Olanamic, Inc.	$200,000	$197,000	$199,000	Available for sale
Fossil, Inc.	$150,000	$154,000	$160,000	Available for sale
Meander, Inc.	$100,000	$101,200	$102,400	Held to maturity
Resin, Inc..	$140,000	$136,000	$137,000	Held to maturity

Required

a. At what total amount will the trading bond investments be reported on the December 31 balance sheet?
b. At what total amount will the available-for-sale bond investments be reported on the December 31 balance sheet?
c. At what total amount will the held-to-maturity bond investments be reported on the December 31 balance sheet?

d. What total amount of unrealized holding gains or unrealized holding losses related to bond investments will appear on the income statement?

e. What total amount of unrealized holding gains or unrealized holding losses related to bond investments will appear in the stockholders' equity section of the December 31 balance sheet?

f. What total amount of fair value adjustment to bond investments will appear on the December 31 balance sheet? Which category of bond investments does the fair value adjustment relate to? Does the fair value adjustment increase or decrease the financial statement presentation of these bond investments?

PD-2A. Bond Investment Journal Entries The following transactions and adjustments relate to bond investments acquired by Bloom Corporation: **LO2**

Homework MBC

2016

June 30 Purchased $200,000 face value of Dynamo, Inc.'s 20-year, 9 percent bonds dated June 30, 2016, for $215,200 cash. Interest is paid December 31 and June 30. The investment is classified as an available-for-sale security.

Dec. 31 Received the semiannual interest payment from Dynamo and amortized the bond premium (straight-line method).

31 Purchased $300,000 face value of Link, Inc.'s 10-year, 7 percent bonds dated December 31, 2016, for $297,000 cash. Interest is paid June 30 and December 31. The investment is classified as a held-to-maturity security.

31 Made an adjusting entry to record the current fair value of the Dynamo bonds. At December 31, the market value was $216,000.

2017

June 30 Received the semiannual interest payment from Dynamo and amortized the bond premium.

30 Received the semiannual interest payment from Link and amortized the bond discount (straight-line method).

July 1 Sold the Dynamo bonds for $216,500.

Oct. 31 Purchased $60,000 face value of Taxco, Inc.'s 5-year, 8 percent bonds dated October 31, 2017, for $60,500. Interest is paid April 30 and October 31. The investment is classified as a trading security.

Dec. 31 Received the semiannual interest payment from Link and amortized the bond discount.

31 Made an adjusting entry to record interest earned on the investment in Taxco bonds.

31 Made an adjusting entry to record the current fair value of the Taxco bonds. At December 31, the market value of the bonds was $59,200.

31 Made an adjusting entry to eliminate balances in the Fair Value Adjustment to Bond Investment account and the Unrealized Gain/Loss on Investments (Equity) account.

Required

Prepare the journal entries to record these transactions and adjustments.

PD-3A. Stock Investment Journal Entries The following transactions and adjustments relate to stock investments made by Steen Corporation: **LO3**

Homework MBC

2016

July 1 Purchased 1,000 shares of Polk, Inc.'s common stock for $66,200 cash. The investment is noninfluential and noncontrolling and is classified as a trading security.

Oct. 1 Purchased 3,000 shares of Wynn, Inc.'s common stock for $78,000 cash and 2,000 shares of Maple, Inc.'s common stock for $64,000 cash. These investments are noninfluential and noncontrolling and are classified as available-for-sale securities. (Note: Use two separate investment accounts.)

Nov. 9 Received a cash dividend of 90 cents per share on the Wynn stock.

Dec. 31 Made an adjusting entry to record the current fair value of the Polk stock. At December 31, the stock has a market value of $63.00 per share.

31 Made an adjusting entry to record the current fair value of the Wynn and Maple stocks. At December 31, the Wynn stock has a market value of $27.50 per share and the Maple stock has a market value of $31.00 per share. (*Note:* Make one adjusting entry for the portfolio of available-for-sale stocks.)

2017
Feb. 1 Sold the Polk stock for $62 per share.
Dec. 31 Made an adjusting entry to record the current fair value of the Wynn and Maple stocks. At December 31, the per-share market values are Wynn, $30.00, and Maple, $33.00. (*Note:* Be sure to allow for the adjustment made at December 31.)

Required

Prepare the journal entries to record these transactions and adjustments.

LO3 **PD-4A. Contrasting Journal Entries for Stock Investments: Trading and Equity Methods** On January 2, 2016, Trubek Corporation purchased 10,000 shares of Forge Company common stock for $15 per share, including commissions and taxes. On December 31, 2016, Forge announced its net income of $80,000 for the year and paid a dividend of $1.10 per share. At December 31, 2016, the market value of Forge's stock was $19 per share. Trubek received its dividend on December 31, 2016.

Required

a. Assume that the stock acquired by Trubek represents 15 percent of Forge's voting stock and is classified as a trading security. Prepare all journal entries appropriate for this investment.
b. Assume that the stock acquired by Trubek represents 25 percent of Forge's voting stock. Prepare all journal entries appropriate for this investment.

LO3 **PD-5A. Recording Influential Securities** At the beginning of the year, the Carlton and United Brewery (CUB) of Melbourne, Australia, purchased a 30 percent ownership interest in Icehouse Brewery of Brisbane, Australia. The investment cost $30 million. At year-end, Icehouse Brewery declared and paid cash dividends to shareholders totaling $800,000, after reporting earnings of $5 million.

Required

a. Calculate the income statement effect of CUB's investment in Icehouse Brewery as of year-end.
b. Calculate the book value of CUB's equity investment in Icehouse Brewery at year-end.
c. Calculate the book value of CUB's equity investment in Icehouse Brewery at year-end assuming that Icehouse reported a loss of $3 million instead of a profit of $5 million and still paid its dividend of $800,000.

LO3 **PD-6A. Accounting for Equity Securities** Susan Company has the following securities in its portfolio on December 31, 2017:

		Market Values	
	Cost	**Dec. 31, 2017**	**Dec. 31, 2016**
5,000 shares of Answa Corp.	$60,000	$58,000	$ 0
10,000 shares of Smiler Co.	80,000	85,300	88,400

Additional information:

- Susan is not able to exercise significant influence over either of the investments.
- The Smiler Company securities were purchased at the beginning of 2016 and the appropriate year-end adjustments were made at the end of that year. Susan intends to hold the Smiler stock for long-term growth.
- The investment in Answa Corp. was in anticipation of a quick sale during February of 2018.
- During 2017, Susan received cash dividends of $700 from Smiler Corp.

Required

a. How will each of the two securities be accounted for by Susan Company? Justify your choices.
b. Prepare a partial balance sheet and partial income statement at December 31, 2017, which reflect the transactions provided.

PROBLEMS—SET B

LO3 **PD-1B. The Analysis of Stock Investments** The Discovery Company began operations in 2016, and by year-end (December 31), had made six stock investments. Year-end information on these stock investments follows:

Company	Cost or Equity (as appropriate)	Year-End Market Value	Classification
Lisle, Inc.	$ 68,000	$ 65,300	Trading
Owl, Inc.	$162,500	$160,000	Trading
Bionamic, Inc.	$197,000	$192,000	Available for sale
Foote, Inc.	$157,000	$154,700	Available for sale
Buckley, Inc.	$100,000	$102,400	Influential
Riccer, Inc.	$136,000	$133,200	Influential

Required

a. At what total amount will the trading stock investments be reported on the December 31 balance sheet?

b. At what total amount will the available-for-sale stock investments be reported on the December 31 balance sheet?

c. At what total amount will the influential stock investments be reported on the December 31 balance sheet?

d. What total amount of unrealized holding gains or unrealized holding losses related to stock investments will appear on the income statement?

e. What total amount of unrealized holding gains or unrealized holding losses related to stock investments will appear in the stockholders' equity section of the December 31 balance sheet?

f. What total amount of fair value adjustment to stock investments will appear on the December 31 balance sheet? Which category of stock investments does the fair value adjustment relate to? Does the fair value adjustment increase or decrease the financial statement presentation of these stock investments?

PD-2B. Bond Investment Journal Entries The following transactions and adjustments relate to bond investments acquired by Jackson Corporation: **LO2**

Homework MBC

2016

June 30 Purchased $100,000 face value of Alamo, Inc.'s 20-year, 7 percent bonds dated June 30, 2016, for $97,200 cash. Interest is paid December 31 and June 30. The investment is classified as an available-for-sale security.

Dec. 31 Received the semiannual interest payment from Alamo and amortized the bond discount (straight-line method).

31 Purchased $300,000 face value of Lyme, Inc.'s 10-year, 8 percent bonds dated December 31, 2016, for $304,000 cash. Interest is paid June 30 and December 31. The investment is classified as a held-to-maturity security.

31 Made an adjusting entry to record the current fair value of the Alamo bonds. At December 31, the market value was $96,400.

2017

June 30 Received the semiannual interest payment from Alamo and amortized the bond discount.

30 Received the semiannual interest payment from Lyme and amortized the bond premium (straight-line method).

July 1 Sold the Alamo bonds for $96,500.

Oct. 31 Purchased $80,000 face value of Weir, Inc.'s 5-year, 7.57 percent bonds dated October 31, 2017, for $79,000. Interest is paid April 30 and October 31. The investment is classified as a trading security.

Dec. 31 Received the semiannual interest payment from Lyme and amortized the bond premium.

31 Made an adjusting entry to record interest earned on investment in the Weir bonds.

31 Made an adjusting entry to record the current fair value of Weir bonds. At December 31, the market value of the bonds was $79,900.

31 Made an adjusting entry to eliminate balances in the Fair Value Adjustment to Bond Investment account and the Unrealized Gain/Loss on Investments (Equity) account.

Required

Prepare the journal entries to record these transactions and adjustments.

PD-3B. Stock Investment Journal Entries The following transactions and adjustments relate to stock investments made by Kramer Corporation: **LO3**

Homework MBC

2016		
July	1	Purchased 2,000 shares of Cook, Inc.'s common stock for $96,200 cash. The investment is noninfluential and noncontrolling and is classified as a trading security.
Oct.	1	Purchased 1,000 shares of Fox, Inc.'s common stock for $28,000 cash and 5,000 shares of Dent, Inc.'s common stock for $75,000 cash. These investments are noninfluential and noncontrolling and are classified as available-for-sale securities. (Note: Use two separate investment accounts.)
Nov.	9	Received a cash dividend of 70 cents per share on the Dent stock.
Dec.	31	Made an adjusting entry to record the current fair value of the Cook stock. At December 31, the stock has a market value of $50.50 per share.
	31	Made an adjusting entry to record the current fair values of the Fox and Dent stocks. At December 31, the Fox stock has a market value of $26.25 per share and the Dent stock has a market value of $14.00 per share. (*Note:* Make one adjusting entry for the portfolio of available-for-sale stocks.)
2017		
Feb.	1	Sold the Cook stock for $52 per share.
Dec.	31	Made an adjusting entry to record the current fair values of Fox and Dent stocks. At December 31, the per-share market values are Fox, $25.00, and Dent, $12.00. (*Note*: Be sure to allow for the adjustment made at December 31.)

Required

Prepare the journal entries to record these transactions and adjustments.

LO3 **PD-4B. Contrasting Journal Entries for Stock Investments: Trading and Equity Methods** On January 2, 2016, Clemens, Inc., purchased 20,000 shares of Baer, Inc.'s common stock for $21 per share, including commissions and taxes. On December 31, 2016, Baer announced its net income of $280,000 for the year and paid a dividend of 80 cents per share. At December 31, 2016, the market value of Baer's stock was $18 per share. Clemens received its dividend on December 31, 2016.

Required

a. Assume that the stock acquired by Clemens represents 10 percent of Baer's voting stock and is classified as a trading security. Prepare all journal entries appropriate for this investment.

b. Assume that the stock acquired by Clemens represents 40 percent of Baer's voting stock. Prepare all journal entries appropriate for this investment.

LO3 **PD-5B. Recording Influential Securities** At the beginning of the year, the Frederick and Prince Brewery (FPB) of Auckland, New Zealand, purchased a 40 percent ownership interest in Flanagan Brewery of Belfast, Ireland. The investment cost $40 million. At year-end, Flanagan Brewery declared and paid cash dividends to shareholders totaling $1,200,000, after reporting earnings of $7 million.

Required

a. Calculate the income statement effect of FPB's investment in Flanagan Brewery as of year-end.

b. Calculate the book value of FPB's equity investment in Flanagan Brewery at year-end.

c. Calculate the book value of FPB's equity investment in Flanagan Brewery at year-end assuming that Flanagan reported a loss of $4 million instead of a profit of $7 million and still paid its dividend of $1,200,000.

LO3 **PD-6B. Accounting for Equity Securities** Sally Company has the following securities in its portfolio on December 31, 2017:

		Market Values	
	Cost	Dec. 31, 2017	Dec. 31, 2016
5,000 shares of Peach Corp.	$ 90,000	$ 85,000	$ 0
10,000 shares of Gordon Co.	120,000	130,300	133,400

Additional information:

- Sally is not able to exercise significant influence over either of the investments.
- The Gordon Company securities were purchased at the beginning of 2016 and the appropriate year-end adjustments were made at the end of that year. Sally intends to hold the Gordon stock for long-term growth.
- The investment in Peach Corp. was in anticipation of a quick sale during February of 2018.
- During 2017, Sally received cash dividends of $900 from Peach Corp.

Required

a. How will each of the two securities be accounted for by Sally Company? Justify your choices.

b. Prepare a balance sheet and partial income statement at December 31, 2017, which reflects the transactions provided.

ANSWERS TO SELF-STUDY QUESTIONS

1. b, (pp. D-5–D-7) 2. c, (pp. D-9–D-11) 3. b, (pp. D-9–D-10) 4. d, (pp. D-2–D-3) 5. a, (p. D-9) 6. b, (pp. D-8–D-10) 7. c, (pp. D-2–D-3) 8. c, (pp. D-4–D-5) 9. a, (p. D-9) 10. b, (pp. D-9–D-10) 11. c, (p. D-4) 12. b, (p. D-8) 13. a, (p. D-3)