CHAPTER FIVE

5

ANALYZING INVESTING ACTIVITIES: INTERCORPORATE INVESTMENTS

A LOOK BACK <

Chapters 3 and 4 focused on accounting analysis of financing and investing activities. We explained and analyzed these activities as reflected in financial statements and interpreted them in terms of expectations for company performance.

A LOOK AT THIS CHAPTER •

This chapter extends our analysis to intercorporate investments. We analyze both intercorporate investments and business combinations from the perspective of the investor company. We show the importance of interpreting disclosures on intercompany activities for analysis of financial statements. We conclude with a discussion of the accounting for investments in derivative securities.

A LOOK AHEAD >

Chapter 6 extends our analysis to operating activities. We analyze the income statement as a means to understand and predict future company performance. We also introduce and explain important concepts and measures of income.

ANALYSIS OBJECTIVES

- Analyze financial reporting for intercorporate investments.
- Analyze financial statement disclosures for investment securities.
- Interpret consolidated financial statements.
- Analyze implications of the purchase (and pooling) method of accounting for business combinations.
- Interpret goodwill arising from business combinations.
- Describe derivative securities and their implications for analysis.
- Analyze the fair value option for financial assets and liabilities.
- Explain consolidation of foreign subsidiaries and foreign currency translation (Appendix 5A).
- Describe investment return analysis (Appendix 5B).

The Goodwill Plunge

NEW YORK–Viacom reported a loss of $17.5 billion in 2004 (28% of its equity) primarily due to its write-off of $18 billion of goodwill relating to its Radio and Outdoor segments that was previously recorded in its balance sheet as an asset. The company describes its rationale for the write-off as follows: "Competition from other advertising media, including Internet advertising and cable and broadcast television has reduced Radio and Outdoor growth rates." In short, forecasted cash flows from these investments were less than had been anticipated when the investments were purchased, thus slashing their value.

These goodwill write-offs follow from an accounting standard passed in 2001 relating to business combinations. Previously, goodwill was amortized over a period of up to 40 years, resulting in an earnings drag that companies complained had compromised their ability to compete globally. Under the current accounting standard, instead of being amortized, goodwill is tested annually for impairment. It was during such an annual test that Viacom determined its goodwill had become impaired.

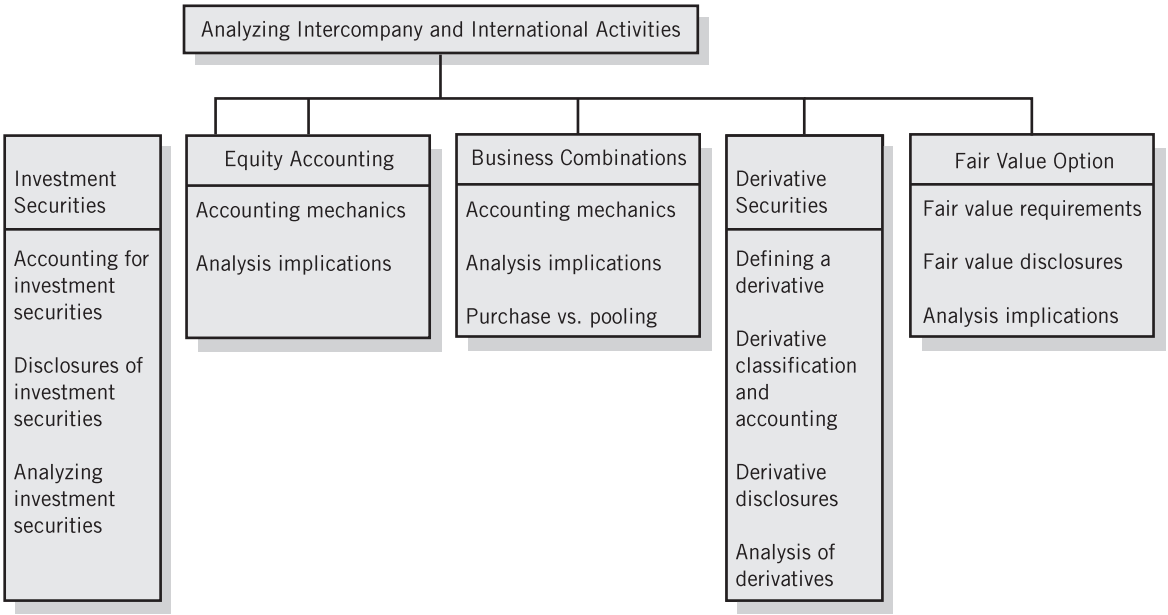
mistakes show up . . . as sporadic write-offs of unprecedented proportions.

How should we interpret these write-offs? While companies and Wall Street analysts generally stress that goodwill write-offs are one-time, noncash charges that have no impact on underlying operations or cash flow, many accounting experts disagree. These experts argue that write-offs represent an admission by management that the companies' investments are no longer worth what they were recorded at. "We are going to get confirmation that hundreds of billions of dollars in shareholder capital has been wasted or destroyed," says David Tice, manager of the Prudent Bear fund.

Believing their own growth stories and enjoying high stock valuations that gave them pricey stock to swap for acquisitions, companies engaged in an unprecedented number of acquisitions. Many of the prices paid, in hindsight, look excessive. "The serial acquisitions many companies made are not going to generate the revenues they anticipated. That suggests management made some bad deals," says Lehman Bros. accounting expert Robert Willens. These mistakes show up, not as orderly amortization of goodwill, but as sporadic write-offs of unprecedented proportions.

PREVIEW OF CHAPTER 5

Intercompany investments play an increasing role in business activities. Companies purchase intercompany investments for many reasons, such as diversification, expansion, and competitive opportunities and returns. This chapter considers the analysis and interpretation of these business activities as reflected in financial statements and analyzes financial statement disclosures for investment securities. We consider current reporting requirements from an analysis perspective–both for what they do and do not tell us. We describe how current disclosures are relevant for analysis, and how we might usefully apply analytical adjustments to these disclosures. We direct special attention to the unrecorded assets and liabilities relating to intercompany investments. We describe derivative securities and their implications for analysis.



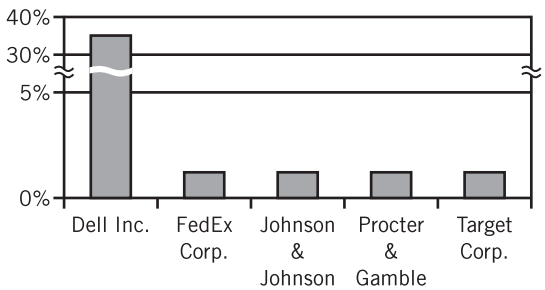
INVESTMENT SECURITIES

Companies invest assets in **investment securities** (also called *marketable securities*). Investment securities vary widely in terms of the type of securities that a company invests in and the purpose of such investment. Some investments are temporary repositories of excess cash held as marketable securities. They also can include funds awaiting investment in plant, equipment, and other operating assets, or can serve as funds for payment of liabilities. The purpose of these temporary repositories is to deploy idle cash in a productive manner. Other investments, for example equity participation in an affiliate, are often an integral part of the company's core activities.

Investment securities can be in the form of either debt or equity. **Debt securities** are securities representing a creditor relationship with another entity–examples are corporate bonds, government bonds, notes, and municipal securities. **Equity securities** are securities representing ownership interest in another entity–examples are common stock and nonredeemable preferred stock. Companies classify investment securities among their current and/or noncurrent assets, depending on the investment horizon of the particular security.

For most companies, investment securities constitute a relatively minor share of total assets and, with the exception of investments in affiliates, these investments are in financial, rather than operating, assets. This means these investments usually are *not* an integral part of the operating activities of the company. However, for financial institutions and insurance companies, investment securities constitute important operating assets.

Investments as a Percentage of Total Assets



In this section we first explain the classification and accounting for investment securities. We then examine disclosure requirements for investment securities, using pertinent disclosures from Microsoft's annual report. We conclude the section by discussing analysis of investment securities.

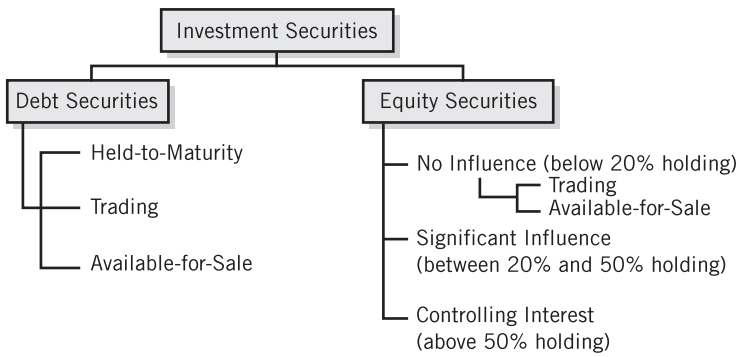
Accounting for Investment Securities

The accounting for investment securities is prescribed under *SFAS 115*. This standard departs from the traditional lower-of-cost-or-market principle by prescribing that investment securities be reported on the balance sheet at cost or fair (market) value, depending on the type of security and the degree of influence or control that the investor company has over the investee company. This means that, unlike other assets, investment securities can be valued at market even when market value exceeds the acquisition cost.

Fair value of an asset is the amount the asset can be exchanged for in a current, normal transaction between willing parties. When an asset is regularly traded, its fair value is *readily determinable* from its published market price. If no published market price exists for an asset, fair value is determined using historical cost. See Chapter 2 for a detailed discussion of fair value.

Accounting for an investment security is determined by its classification. Exhibit 5.1 presents the classification possibilities for investment securities. Investment securities are broadly classified as either debt or equity securities. Debt securities, in turn, are further classified based on the purpose of the investment. Equity securities, on the other hand, are classified on the extent of interest–that is, the extent of investor ownership in and, therefore, influence or control over, the investee. Equity securities reflecting no significant ownership interest in the investee are further classified on the purpose of the investment. Because the accounting for investments in debt and equity securities are different, we explain each separately.

Classification of Investment Securities ***Exhibit 5.1***



Debt Securities

Debt securities represent creditor relationships with other entities. Examples are government and municipal bonds, company bonds and notes, and convertible debt. Debt securities are classified as trading, held to maturity, or available for sale. Accounting guidelines for debt securities differ depending on the type of security. Exhibit 5.2 describes the criteria for classification and the accounting for each class of debt securities.

Held-to-Maturity Securities. **Held-to-maturity securities** are debt securities that management has both the ability and intent to hold to maturity. They could be either short term (in which case they are classified as current assets) or long term (in which case they

Exhibit 5.2 ***Classification and Accounting for Debt Securities***

		ACCOUNTING		
			INCOME STATEMENT	
Category	**Description**	**Balance Sheet**	**Unrealized Gains/Losses**	**Other**
Held-to-maturity	Securities acquired with both the intent and ability to hold to maturity	Amortized cost	Not recognized in either net income or comprehensive income	Recognize realized gains/losses and interest income in net income
Trading	Securities acquired mainly for short-term or trading gains (usually less than three months)	Fair value	Recognize in net income	Recognize realized gains/losses and interest income in net income
Available-for-sale	Securities neither held for trading nor held-to-maturity	Fair value	Not recognized in net income, but recognized in comprehensive income	Recognize realized gains/losses and interest income in net income

are classified as noncurrent assets). Companies report short-term (long-term) held-to-maturity securities on the balance sheet at cost (amortized cost). No unrealized gains or losses from these securities are recognized in income. Interest income and realized gains and losses, including amortization of any premium or discount on long-term securities, are included in income. The held-to-maturity classification is used only for debt securities.

Trading Securities. **Trading securities** are debt (or noninfluential equity) securities purchased with the intent of actively managing them and selling them for profit in the near future. Trading securities are current assets. Companies report them at aggregate fair value at each balance sheet date. Unrealized gains or losses (changes in fair value of the securities held) and realized gains or losses (gains or losses on sales) are included in net income. Interest income from the trading securities held in the form of debt is recorded as it is earned. (Dividend income from the trading securities held in the form of equity is recorded when earned.) The trading classification is used for both debt and equity securities.

Available-for-Sale Securities. **Available-for-sale securities** are debt (or noninfluential equity) securities not classified as either trading or held-to-maturity securities. These securities are included among current or noncurrent assets, depending on their maturity and/or management's intent regarding their sale. These securities are reported at fair value on the balance sheet. However, changes in fair value are excluded from net income and, instead, are included in comprehensive income (Chapter 6 defines comprehensive income). With available-for-sale debt securities, interest income, including amortization of any premium or discount on long-term securities, is recorded when earned. (With available-for-sale equity securities, dividends are recorded in income when earned.) Realized gains and losses on available-for-sale securities are included in income. The available-for-sale classification is used for both debt and equity securities.

Transfers between Categories. When management's intent or ability to carry out the purpose of investment securities significantly changes, securities usually must be reclassified (transferred to another class). Normally, debt securities classified as held-to-maturity cannot be transferred to another class except under exceptional circumstances

such as a merger, acquisition, divestiture, a major deterioration in credit rating, or some other extraordinary event. Also, transfers from available-for-sale to trading are normally not permitted. However, whenever transfers of securities between classes do occur, the securities must be adjusted to their fair value. This fair value requirement ensures that a company transferring securities immediately recognizes (in its income statement) changes in fair value. It also reduces the likelihood a company could conceal changes in fair value by transferring securities to another class that does not recognize fair value changes in income. Exhibit 5.3 summarizes the accounting for transfers between various classes.

Accounting for Transfers between Security Classes ***Exhibit 5.3***

TRANSFER			
From	**To**	**Effect on Asset Value in Balance Sheet**	**Effect on Income Statement**
Held-to-maturity	Available-for-sale	Asset reported at fair value instead of (amortized) cost	Unrealized gain or loss on date of transfer included in comprehensive income
Trading	Available-for-sale	No effect	Unrealized gain or loss on date of transfer included in net income
Available-for-sale	Trading	No effect	Unrealized gain or loss on date of transfer included in net income
Available-for-sale	Held-to-maturity	No effect at transfer; however, asset reported at (amortized) cost instead of fair value at future dates	Unrealized gain or loss on date of transfer included in comprehensive income

Equity Securities

Equity securities represent ownership interests in another entity. Examples are common and preferred stock and rights to acquire or dispose of ownership interests such as warrants, stock rights, and call and put options. Redeemable preferred stock and convertible debt securities are not considered equity securities (they are classified as debt securities). The two main motivations for a company to purchase equity securities are (1) to exert influence over the directors and management of another entity (such as suppliers, customers, subsidiaries) or (2) to receive dividend and stock price appreciation income. Companies report investments in equity securities according to their ability to influence or control the investee's activities. Evidence of this ability is typically based on the percentage of voting securities controlled by the investor company. These percentages are guidelines and can be overruled by other factors. For example, significant influence can be conferred via contact even without a significant ownership percentage. Exhibit 5.4 summarizes the classification and accounting for equity securities.

No Influence—Less than 20% Holding. When equity securities are nonvoting preferred or when the investor owns less than 20% of an investee's voting stock, the ownership is considered noninfluential. In these cases, investors are assumed to possess minimal influence over the investee's activities. These investments are classified as either trading or available-for-sale securities, based on the intent and ability of management. Accounting for these securities is already described under debt securities that are similarly classified.

Significant Influence—Between 20% and 50% Holding. Security holdings, even when below 50% of the voting stock, can provide an investor the ability to exercise significant

IPO NO-NO

Raising cash for new companies through initial public offerings is rife with conflicts. Investment banks push their analysts to give IPO clients sky-high ratings. And banks routinely underprice IPOs so they can use shares in a hot new stock to reward friends and woo potential banking clients.

Exhibit 5.4 ***Classification and Accounting for Equity Securities***

	NO INFLUENCE			
Attribute	**Available-for-Sale**	**Trading**	**Significant Influence**	**Controlling Interest**
Ownership	Less than 20%	Less than 20%	Between 20% and 50%	Above 50%
Purpose	Long- or intermediate-term investment	Short-term investment or trading	Considerable business influence	Full business control
Valuation basis	Fair value	Fair value	Equity method	Consolidation
Balance sheet Asset value	Fair value	Fair value	Acquisition cost adjusted for proportionate share of investee's retained earnings and appropriate amortization	Consolidated balance sheet
Income statement: Unrealized gains	In comprehensive income	In net income	Not recognized	Not recognized
Income statement: Other income effects	Recognize dividends and realized gains and losses in net income	Recognize dividends and realized gains and losses in net income	Recognize proportionate share of investee's net income less appropriate amortization in net income	Consolidated income statement

influence over an investee's business activities. Evidence of an investor's ability to exert significant influence over an investee's business activities is revealed in several ways, including management representation and participation or influence conferred as a result of contractual relationships. In the absence of evidence to the contrary, an investment (direct or indirect) of 20% or more (but less than 50%) in the voting stock of an investee is presumed to possess significant influence. The investor accounts for this investment using the equity method.

The **equity method** requires investors initially to record investments at cost and later adjust the account for the investor's proportionate share in both the investee's income (or loss) because acquisition and decreases from any dividends received from the investee. We explain the mechanics of this process in the next section of this chapter.

Controlling Interest—Holdings of More than 50%. Holdings of more than 50% are referred to as **controlling interests**–where the investor is known as the *holding company* and the investee as the *subsidiary. Consolidated financial statements* are prepared for holdings of more than 50%. We explain consolidation later in the chapter.

ANALYSIS VIEWPOINT ***. . . YOU ARE THE COMPETITOR***

Toys "R" Us, a retailer in toys and games, is concerned about a recent transaction involving a competitor. Specifically, Marvel Entertainment, a comic book company, obtained 46% of equity securities in Toy Biz by granting Toy Biz an exclusive worldwide license to use all of Marvel's characters (such as Spider-Man, Incredible Hulk, Storm) for toys and games. What is the primary concern of Toys "R" Us? What is Marvel's motivation for its investment in Toy Biz's equity securities?

The Fair Value Option

A recent standard *(SFAS 159)* allows companies to selectively report held-to-maturity and available-for-sale securities at fair value. If a company chooses this option, then the accounting for all available-for-sale and held-to-maturity securities will be similar to that accorded to trading securities under *SFAS 115*. Specifically, for all investment securities (trading, available for sale, and held to maturity), (1) the carrying value on the balance sheet will be the fair value, and (2) all unrealized gains and losses will be included in net income. The fair value option can be voluntarily applied in a selective manner to any class of securities that the company chooses, but once fair value has been adopted for a class of securities, the company cannot reverse the option. We discuss the fair value option in detail in a later section of this chapter.

The fair value option is not available for equity investments that need to be consolidated. It is also not generally allowed for those securities for which the equity method of accounting applies.

Disclosures for Investment Securities

This section focuses on the disclosures required under *SFAS 115*. We use Microsoft as an example. Exhibit 5.5 provides excerpts from Microsoft Corporation's notes relating to debt and marketable equity securities (holdings below 20%). Microsoft classifies the majority of its debt and equity investment as available for sale and reports acquisition cost, fair value, and unrealized gain/loss details for each class of its investments. On June 30, 2004, the estimated fair value of Microsoft's available-for-sale securities was $72,802 million, including $10,729 million of equity and $62,073 million of fixed maturity securities (debt and cash). The cost of these securities is $71,275 million, implying a cumulative unrealized gain of $1,527 million (consisting of a $1,820 million gross unrealized gain and a $293 million gross unrealized loss), which is included in the accumulated other comprehensive income (OCI) account in stockholders' equity. In addition, Microsoft reports that it owns restricted or nonpublicly traded securities that it records at cost as prescribed by GAAP. The excess of the estimated (by Microsoft) fair market value of these securities over their reported cost is $470 million. This unrealized gain is not reflected either on the balance sheet or in OCI since the securities are reported at cost.

The company's income statement reports investment income for the recent year of $3,187 million. The notes to the financial statement reveal that this income includes dividends and interest of $1,892 million, net recognized gains in investments of $1,563 million, and net losses on derivatives of $268 million (we discuss accounting for derivative investments later in the chapter).

Analyzing Investment Securities

Analysis of investment securities has at least two main objectives: (1) to separate operating performance from investing (and financing) performance and (2) to analyze accounting distortions due to accounting rules and/or earnings management involving investment securities. We limit our analysis to debt securities and noninfluential (and marketable) equity securities. Analysis of the remaining equity securities is discussed later in this chapter.

Separating Operating from Investing Assets and Performance

The operating and investing performance of a company must be separately analyzed. This is because a company's investing performance can distort its true operating

Exhibit 5.5 ***Investment Securities Disclosures—Microsoft Corporation***

INVESTMENTS

Equity and other investments include both debt and equity instruments. Debt securities and publicly traded equity securities are classified as available-for-sale and are recorded at market using the specific identification method. Unrealized gains and losses (excluding other-than-temporary impairments) are reflected in OCI. All other investments, excluding those accounted for using the equity method, are recorded at cost. The components of investments are as follows:

June 30, 2004 (in millions)	Cost Basis	Unrealized Gains	Unrealized Losses	Recorded Basis	Cash and Equivalents	Short-Term Investments	Equity and Other Investments
Fixed maturity securities							
Cash	$ 1,812	$ —	$ —	$ 1,812	$ 1,812	$ —	$ —
Money market mutual funds	3,595	—	—	3,595	3,595	—	—
Commercial paper	7,286	—	—	7,286	4,109	3,177	—
Certificates of deposit	415	—	—	415	330	85	—
U. S. government and agency securities	20,565	26	(54)	20,537	4,083	16,454	—
Foreign government bonds	4,524	41	(60)	4,505	—	4,505	—
Mortgage-backed securities	3,656	21	(42)	3,635	—	3,635	—
Corporate notes and bonds	15,048	122	(50)	15,120	1,010	12,629	1,481
Municipal securities	5,154	39	(25)	5,168	1,043	4,125	—
Fixed maturity securities	62,055	249	(231)	62,073	15,982	44,610	1,481
Equity securities							
Common stock and equivalents	7,722	1,571	(62)	9,231	—	—	9,231
Preferred stock	1,290	—	—	1,290	—	—	1,290
Other investments	208	—	—	208	—	—	208
Equity securities	9,220	1,571	(62)	10,729	—	—	10,729
Total	$71,275	$1,820	$(293)	$72,802	$15,982	$44,610	$12,210

At June 30, 2004, unrealized losses of $293 million . . . are primarily attributable to changes in interest rates . . . Management does not believe any unrealized losses represent an other-than temporary impairment based on our evaluation of available evidence as of June 30, 2004.

Common and preferred stock and other investments that are restricted for more than one year or are not publicly traded are recorded at cost. At June 30, 2003, the recorded basis of these investments was $2.15 billion, and their estimated fair value was $2.56 billion. At June 30, 2004, the recorded basis of these investments was $1.65 billion, and their estimated fair value was $2.12 billion. The estimate of fair value is based on publicly available market information or other estimates determined by management.

Investment Income (Loss)

The components of investment income (loss) are as follows:

Year Ended June 30 (in millions)	2002	2003	2004
Dividends and interest	$2,119	$1,957	$1,892
Net recognized gains(losses) on investments	(1,807)	44	1,563
Net losses on derivatives	(617)	(424)	(268)
Investment income(loss)	$ (305)	$1,577	$3,187

performance. For this purpose, it is important for an analyst to remove all gains (losses) relating to investing activities–including dividends, interest income, and realized and unrealized gains and losses–when evaluating operating performance. An analyst also needs to separate operating and nonoperating assets when determining the return on net operating assets (RNOA).

As a rule of thumb, all debt securities and marketable noninfluential equity securities, and their related income streams, are viewed as investing activities. Still, an analyst must review the nature of a company's business and the objectives behind different investments before classifying them as operating or investing. Here are two cases where the rule of thumb does not always apply:

- Financial institutions focus on financing and investing activities. This implies that all financing and investing income and assets are operating-related for financial institutions.
- Some nonfinancial institutions derive a substantial portion of their income from investing activities. For example, finance subsidiaries are sometimes the most profitable business units for companies such as General Electric and General Motors. For such companies it is important to separate the performance of the financing (and investing) units from these companies' core operations–although income from such important activities should not be considered secondary.

There are no "cookbook" solutions for determining whether investment securities (and related income streams) are investing or operating in nature. This classification must be made based on an assessment of whether each investment is a strategic part of operations or made purely for the purpose of investment.

BANK FAVORS

Big banks allegedly dole out favorable loans to corporations to gain investment-banking business. Despite growing defaults, banks have largely avoided losses by securitizing many of the loans and selling them off to pension funds and insurance companies.

Analyzing Accounting Distortions from Securities

SFAS 115 takes an important step towards fair value accounting for investment securities. However, this standard does not fully embrace fair value accounting. Instead, the standard is a compromise between historical cost and fair value, leaving many unresolved issues along with opportunities for earnings management. This means an analyst must examine disclosures relating to investment securities to identify potential distortions due to both accounting methods and earnings management. This analysis is especially important when analyzing financial institutions and insurance companies because investing activities constitute the core of their operations and provide the bulk of their income. We list some of the potential distortions caused by the accounting for investment securities that an analyst must watch for:

- **Opportunities for gains trading:** The standard allows opportunities for *gains trading* with available-for-sale and held-to-maturity securities. Because unrealized gains and losses on available-for-sale and held-to-maturity securities are excluded from net income, companies can increase net income by selling those securities with unrealized gains and holding those with unrealized losses. However, the standard requires unrealized gains and losses on available-for-sale securities be reported as part of comprehensive income. An analyst must therefore examine comprehensive income disclosures to ascertain unrealized losses (if any) on unsold available-for-sale securities.
- **Liabilities recognized at cost:** Accounting for investment securities is arguably one-sided. That is, if a company reports its investment securities at fair value, why not its liabilities? For many companies, especially financial institutions, asset positions are not managed independent of liability positions. As a result, accounting

OUT OF LUCK
Defrauded investors have many avenues for relief—but none that promises much restitution. For example, class-action cases against solvent companies return an average of only 6% of claimed losses.

can yield earnings volatility exceeding what the true underlying economics suggest. This consideration led regulators to exclude unrealized holding gains and losses on available-for-sale securities from income. Excluding holding gains and losses from income affects our analysis of the income statement, but does not affect analysis of the balance sheet. Still, unrealized holding gains and losses on available-for-sale securities are reported in comprehensive income.

- **Inconsistent definition of equity securities:** There is concern that the definition of equity securities is arbitrary and inconsistent. For instance, convertible bonds are excluded from equity securities. Yet convertible bonds often derive much of their value from the conversion feature and are more akin to equity securities than debt. This means an analyst should question the exclusion of convertible securities from equity. Redeemable preferred stocks also are excluded from equity securities and, accordingly, our analysis must review their characteristics to validate this classification.
- **Classification based on intent:** Classification of (and accounting for) investment securities depends on management intent, which refers to management's objectives regarding disposition of securities. This intent rule can result in identical debt securities being separately classified into one or any combination of all three classes of trading, held-to-maturity, and available-for-sale securities. This creates ambiguities in how changes in market values of securities are accounted for. An analyst should assess the credibility of management intent by reviewing "premature" sale of held-to-maturity securities. If premature sales occur, they undermine management's credibility.

CONVERTIBLES
Evidence shows that convertible bonds earn about 80% of the returns of diversified stock funds but with only 65% of the price volatility.

Analysis Research

DO FAIR VALUE DISCLOSURES EXPLAIN STOCK PRICES AND RETURNS?

Researchers have investigated whether fair value disclosures of investment securities are helpful in explaining variation in stock prices and/or stock returns. The evidence suggests that fair value disclosures do provide useful information beyond book values in explaining stock prices. This is especially apparent with financial institutions. Research also suggests that disclosures for unrealized gains and losses of marketable investment securities provide information beyond net income in explaining stock prices and stock returns.

EQUITY METHOD ACCOUNTING

Equity method accounting is required for intercorporate investments in which the investor company can exert *significant influence* over, but does not control, the investee. In contrast with passive investments, which we discussed earlier in this chapter, equity method investments are reported on the balance sheet at adjusted cost, not at market value. If originally purchased at book value, the amount reported is equal to the percentage of the investee company's stockholders' equity which is owned by the investor. Equity method accounting is generally used for investments representing 20% to 50% of the voting stock of a company's equity securities. The criterion for the use of the equity method, however, is whether the investor company can exert significant influence over the investee company, regardless of the percentage of stock owned.

Once the investor company can exert *control* over the investee company, consolidation is required. Consolidation entails replacing the equity method investment account with the balance sheet of the investee company to which that investment relates

(we cover consolidation mechanics in the next section). Accordingly, the equity method is sometimes referred to as a *one-line consolidation*. The primary difference between consolidation and equity method accounting rests in the level of detail reported in the financial statements, because the consolidation process does not affect either total stockholders' equity or the net income of the investor company.

There is wide application of equity method accounting for investments in unconsolidated affiliates, joint ventures, and partnerships. These types of investments have increased markedly as companies have sought to form corporate alliances to effectively utilize assets and to gain competitive advantage. It is important, therefore, to understand the mechanics relating to equity method accounting to appreciate what is reported *and what is not reported* in financial statements.

ANALYSIS VIEWPOINT ***. . . YOU ARE THE ANALYST***

Coca-Cola Company has three types of bottlers: (1) independently owned bottlers, in which the company has no ownership interest; (2) bottlers in which the company has invested and has noncontrolling ownership; and (3) bottlers in which the company has invested and has controlling ownership. In line with its long-term bottling strategy, the company periodically considers options for reducing ownership in its consolidated bottlers. In Note 2 of its annual report, Coca-Cola reports that it owns equity interest of 24% to 38% in some of the largest bottlers in the world. Does Coca-Cola "control" these bottlers by virtue of its ownership of the syrup formula? Should these bottlers be consolidated in its annual reports? How would the consolidation of these bottlers affect its turnover and solvency ratios?

Equity Method Mechanics

We begin with a discussion of the mechanics of equity method accounting. Assume that Global Corp. acquires for cash a 25% interest in Synergy, Inc. for $500,000, representing one-fourth of Synergy's stockholders' equity as of the acquisition date. The investment is, therefore, acquired at book value. Synergy's condensed balance sheet as of the date of the acquisition is

Current assets	$ 700,000
Property, plant, and equipment	5,600,000
Total assets	$6,300,000
Current liabilities	$ 300,000
Long-term debt	4,000,000
Stockholders' equity	2,000,000
Total liabilities and equity	$6,300,000

The initial investment is recorded on Global's books as,

Investment	500,000	
Cash		500,000

Global reports the investment account as a noncurrent asset on its balance sheet. This $500,000 investment represents a 25% interest in an investee company with total assets of $6,300,000 and liabilities of $4,300,000.

Subsequent to the date of the acquisition, Synergy reports net income of $100,000 and pays dividends of $20,000. Global records its proportionate share of Synergy's earnings and the receipt of dividends as follows,

Investment	25,000	
Equity in earnings of investee company		25,000
To record proportionate share of investee company earnings		
Cash	5,000	
Investment		5,000
To record receipt of dividends		

Global's earnings have increased by its proportionate share of the net income of Synergy. This income will be reported in the other income section of the income statement as it is treated similarly to interest income. In contrast to the accounting for available-for-sale and trading securities described earlier in this chapter, the dividends received are not recorded as income. Instead, they are treated as a return of the capital invested in Synergy, and the investment account is reduced accordingly.

There is symmetry between Global's investment accounting and Synergy's stockholders' equity:

	Global Corp. Investment Account		Synergy, Inc. Stockholders' Equity		
Beg.	500,000			2,000,000	Beg.
	25,000	5,000	20,000	100,000	
End	520,000			2,080,000	End

Global's investment remains at 25% of Synergy's stockholders' equity.

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

- The investment account is reported at an amount equal to the proportionate share of the stockholders' equity of the investee company. Substantial assets and liabilities may, therefore, not be recorded on balance sheet unless the investee is consolidated. This can have important implications for the analysis of the investor company.
- Investment earnings (the proportionate share of the earnings of the investee company) should be distinguished from core operating earnings in the analysis of the earnings of the investor company unless the investment is deemed to be strategic in nature.
- Contrary to the reporting of available-for-sale and trading securities discussed earlier in this chapter, investments accounted for under the equity method are reported at adjusted cost, not at market value. Substantial unrealized gains may, therefore, not be reflected in assets or stockholders' equity. (Losses in value that are deemed to be other than temporary, however, must be reflected as a write-down in the carrying amount of the investment with a related loss recorded in the income statement.)
- An investor should discontinue equity method accounting when the investment is reduced to zero (such as due to investee losses) and should not provide for additional losses unless the investor has guaranteed the obligations of the investee or is otherwise committed to providing further financial support to the investee. Equity method accounting only resumes once all cumulative deficits have been recovered via investee earnings.

- If the amount of the initial investment exceeds the proportionate share of the book value of the investee company, the excess is allocated to identifiable tangible and intangible assets that are depreciated/amortized over their respective useful lives. Investment income is reduced by this additional expense. The excess not allocated in this manner is treated as goodwill and is no longer amortized.

Analysis Implications of Intercorporate Investments

Our analysis continues with several important considerations relating to intercorporate investments. This section discusses the more important implications.

Recognition of Investee Company Earnings

Equity method accounting assumes that a dollar earned by an investee company is equivalent to a dollar earned for the investor, even if not received in cash. While disregarding the parent's potential tax liability from remittance of earnings by an affiliate, the dollar-for-dollar equivalence of earnings cannot be taken for granted. Reasons include:

- A regulatory authority can sometimes intervene in a subsidiary's dividend policy.
- A subsidiary can operate in a country where restrictions exist on remittance of earnings or where the value of currency can deteriorate rapidly. Political risks can further inhibit access to earnings.
- Dividend restrictions in loan agreements can limit earnings accessibility.
- Presence of a stable or powerful minority interest can reduce a parent's discretion in setting dividend or other policies.

Our analysis must recognize these factors in assessing whether a dollar earned by the affiliate is the equivalent of a dollar earned by the investor.

Unrecognized Capital Investment

The investment account is often referred to as a one-line consolidation. This is because it represents the investor's percentage ownership in the investee company stockholders' equity. Behind this investment balance are the underlying assets and liabilities of the investee company. There can be a significant amount of unrecorded assets and liabilities of the investee company that are not reflected on the balance sheet of the investor.

Consider the case of Coca-Cola presented in the Analysis Viewpoint on page 273. Coca-Cola owns approximately 36% of Coca-Cola Enterprises (CCE), one of its bottling companies. It accounts for this investment under the equity method and reports an investment balance as of December 31, 2004, of $1,679 million, approximately its proportionate share of the $5.4 billion stockholders' equity of CCE. The balance sheet of CCE reports total assets of $26.4 billion and total liabilities of $21.0 billion. The investment balance on Coca-Cola's balance sheet, representing 5% of its reported total assets, belies a much larger investment and financial leverage.

The concern facing the analyst is how to treat this sizable off-balance-sheet investment. Should financial ratio analysis be conducted solely on the reported financial statements of Coca-Cola? Should CCE be consolidated with Coca-Cola by the analyst and financial ratios computed on the consolidated financial statements? Should only Coca-Cola's proportionate interest in the assets and liabilities of CCE be included in place of the investment account for purposes of analysis? These are important issues that must be addressed before beginning the analysis process.

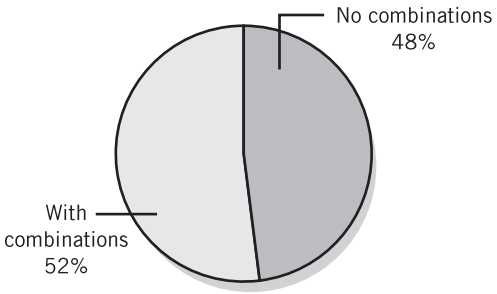
Provision for Taxes on Undistributed Subsidiary Earnings

When the undistributed earnings of a subsidiary are included in the pretax accounting income of a parent company (either through consolidation or equity method accounting), it can require a concurrent provision for taxes. This provision depends on the action and intent of the parent company. Current practice assumes all undistributed earnings transfer to the parent and, thus, a provision for taxes is made by the parent in the current period. This assumption is overcome, however, if persuasive evidence exists that the subsidiary either has or will invest undistributed earnings permanently or will remit earnings through a tax-free liquidation. In analysis, we should be aware that the decision on whether taxes are provided on undistributed earnings is primarily that of management.

BUSINESS COMBINATIONS

Business combinations refer to the merger with, or acquisition of, a business. They occur when one company acquires a substantial part of one or more other companies' equity securities. (We confine our discussion in this section to the acquisition of the stock of the investee company. Asset purchases are treated no differently than the purchase of any other asset: the assets are recorded at their purchase price.) Business combinations require that subsequent financial statements report on the combined activities of this new entity. Accounting for a business combination requires a decision on how to value the assets and liabilities of the new entity. This decision can involve a complete revaluation to market value of all assets and liabilities acquired, with substantial effects extending to current and future financial statements. This accounting decision is different from the intercorporate investment discussion earlier in the chapter that focuses not on the accounting for the "combination" but on the valuation and accounting for the investment itself. Analysis of business combinations must recognize management's incentives, the accounting implications, and the need to evaluate and interpret financial statements of the new entity.

Companies Reporting Business Combinations



Business combinations with sound economic motivations have a long history. Among the economic reasons for business combinations are (1) acquiring valuable sources of materials, productive facilities, technology, marketing channels, or market share; (2) securing financial resources or access to them; (3) strengthening management; (4) enhancing operating efficiency; (5) encouraging diversification; (6) rapidity in market entry; (7) achieving economies of scale; and (8) acquiring tax advantages. We should also recognize certain intangible reasons for business combinations. In certain cases these intangibles are the best explanation for the high costs incurred. They include management prestige, compensation, and perquisites. Management's accounting choices in recording business combinations are often better understood when considering these motivations.

However, business combinations also can arise as a means to enhance a company's image, its perceived growth potential, or its prosperity, and it is a means of increasing reported earnings. Specifically, financial engineers can utilize methods in accounting for business combinations to deliver a picture of earnings growth that is, in large part, illusory. The means to achieve illusionary earnings growth include:

- Merging a growth company having a high price-earnings ratio with a company having lesser growth prospects, and using payment in the high-growth company's

stock. This transaction can contribute to further earnings per share growth and can reinforce and even increase the acquiring company's high price-earnings ratio. Markets sometimes fail to fully account for the potential lower quality of acquired earnings. This is primarily a transitory problem inherent in the market evaluation mechanism, and it is not easily remedied by regulators.

- Using latitude in accounting for business combinations. This is distinct from genuine economic advantages arising from combinations. We consider alternative accounting methods for business combinations in the next section.

Accounting for Business Combinations

The Financial Accounting Standards Board recently enacted two significant pronouncements (*SFAS 141,* "Business Combinations," and *SFAS 142,* "Goodwill and Other Intangible Assets") relating to accounting and reporting for business combinations (effective for fiscal periods beginning December 15, 2001, and after). These standards mandate the use of the *purchase method* of accounting for the acquisition and the subsequent nonamortization of goodwill.

Under the purchase method of accounting, companies are required to recognize on their balance sheets the fair market value of the (tangible and intangible) assets acquired together with the fair market value of any liabilities assumed. Furthermore, the tangible assets are depreciated and the identifiable intangible assets amortized over their estimated useful lives. In a significant departure from prior practice, however, *SFAS 142* mandates that goodwill will no longer be amortized. This nonamortization approach is applied to both previously recognized and newly acquired goodwill. Instead, goodwill is subject to an annual test for impairment. When the carrying amount of goodwill exceeds its implied fair value, an impairment loss will be recognized equal to that excess.

Consolidated Financial Statements

Consolidated financial statements report the results of operations and financial condition of a parent corporation and its subsidiaries in one set of statements. A parent company's financial statements evidence ownership of stock in a subsidiary through an investment account. From a legal point of view, a parent company owns the stock of its subsidiary. A parent does not own the subsidiary's assets nor is it usually responsible for the subsidiary's debts, although it frequently guarantees them. Consolidated financial statements disregard the separate legal identities of the parent and its subsidiary in favor of its "economic substance." That is, consolidated financial statements reflect a business entity controlled by a single company–the parent.

Mechanics of Consolidations

Consolidation involves two steps: *aggregation* and *elimination*. First, consolidated financial statements aggregate the assets, liabilities, revenues, and expenses of subsidiaries with their corresponding items in the financial statements of the parent company. The second step is to eliminate *intercompany transactions* (or reciprocal accounts) to avoid double counting or prematurely recognizing income. For example, both a parent's account payable to its subsidiary and its subsidiary's account receivable from the parent are eliminated when preparing a consolidated balance sheet. Likewise, sales and cost of goods sold are eliminated for intercompany inventory sales.

The net effect of the consolidation on the balance sheet is to report the subsidiary acquired at its fair market value as of the date of acquisition. That is, all of the subsidiary's tangible and separately identifiable intangible assets are reported at their appraised values. Any excess of the purchase price over the fair market values of these identifiable assets is recorded as goodwill.

We now turn to a discussion of the consolidation process. Consider the following case:

On December 31, Year 1, Synergy Corp. purchases 100% of Micron Company by exchanging 10,000 shares of its common stock ($5 par value, $77 market value) for all of the common stock of Micron, which will remain in existence as a wholly owned subsidiary of Synergy. On the date of the acquisition, the book value of Micron is $620,000. Synergy is willing to pay the market price of $770,000 because it feels that Micron's property, plant, and equipment (PP&E) is undervalued by $20,000, it has an unrecorded trademark worth $30,000, and intangible benefits of the business combination (corporate synergies, market position, and the like) are valued at $100,000. The purchase price is, therefore, allocated as follows:

Purchase price	$770,000
Book value of Micron	620,000
Excess	$150,000

Excess allocated to		Useful Life	Annual Depreciation/Amortization
Undervalued PP&E	$ 20,000	10 years	$2,000
Trademark	30,000	5 years	6,000
Goodwill	100,000	Indefinite	0
	$150,000		$8,000

Goodwill can only be recorded following the recognition of the fair market values of all tangible (PP&E) and identifiable intangible (trademark) assets acquired. Synergy makes the following entry to record the acquisition,

Investment in Micron	770,000	
Common stock		50,000 (at par value)
Additional paid-in-capital		720,000

During Year 2, Micron earns $150,000 and pays no dividends. The investment, accounted for under the equity method, has a balance on Synergy's books at December 31, Year 2, as follows:

Beginning balance (12/31/Y1)	$770,000
Investment income	150,000
Dividends	(0)
Amortization of excess (above)	(8,000)
Ending balance (12/31/Y2)	$912,000

Under current GAAP, goodwill is not amortized and the net investment income recognized by Synergy is $142,000, including its proportionate share (100% in this case) of Micron's earnings less $8,000 of expense relating to depreciation of the excess PP&E

($2,000) and the amortization of the trademark ($6,000). The individual company trial balances for both Synergy and Micron at the end of Year 2 are presented in the accompanying table together with the consolidation worksheet and consolidated totals.

SYNERGY CORP. AND SUBSIDIARY
Trial Balances and Consolidated Financial Statements
For Year Ended December 31, Year 2
Prepared under the Purchase Accounting Method

	Synergy	Micron	Debits	Credits	Consolidated
Revenues	$ 610,000	$ 370,000			$ 980,000
Operating expenses	(270,000)	(140,000)			(410,000)
Depreciation expense	(115,000)	(80,000)	[4] $ 2,000		(197,000)
Amortization expense	0	0	[4] 6,000		(6,000)
Investment income	142,000	0	[3] 142,000		0
Net income	$ 367,000	$ 150,000			$ 367,000
Retained earnings, 1/1/Y1	$ 680,000	$ 490,000	[1] 490,000		$ 680,000
Net income	367,000	150,000			367,000
Dividends paid	(90,000)				(90,000)
Retained earnings, 12/31/Y2	$ 957,000	$ 640,000			$ 957,000
Cash	$ 105,000	$ 20,000			$ 125,000
Receivables	380,000	220,000			600,000
Inventory	560,000	280,000			840,000
Investment in Micron	912,000	0		[1] $620,000 [2] 150,000 [3] 142,000	0
Plant, property, and equipment, net	1,880,000	720,000	[2] 20,000	[4] 2,000	2,618,000
Trademark	0	0	[2] 30,000	[4] 6,000	24,000
Goodwill			[2] 100,000		100,000
Total assets	$3,837,000	$1,240,000			$4,307,000
Liabilities	$ 780,000	$ 470,000			$1,250,000
Common stock	800,000	100,000	[1] 100,000		800,000
Additional paid-in capital	1,300,000	30,000	[1] 30,000		1,300,000
Retained earnings	957,000	640,000			957,000
Total liabilities and equity	$3,837,000	$1,240,000	$920,000	$920,000	$4,307,000

The original balance of the investment account on the purchase date ($770,000) represents the market value of Micron. It includes the market value of Micron's reported net assets plus fair market value of the previously unrecognized trademark and the goodwill purchased in the acquisition. The four consolidation entries are (numbers refer to those in the debit and credit columns in the table):

1. Replace $620,000 of the investment account with the book value (at the beginning of the year) of the assets acquired. If less than 100% of the subsidiary is owned, the credit to the investment account is equal to the percentage of the book value owned and the remaining credit is to a liability account, *minority interest*. The minority interest account is treated as a component of equity for

analysis purposes whether or not reported as such on the balance sheet. A recent standard *(SFAS 160)* now requires that minority interest be included as part of shareholders' equity.

2. Replace $150,000 of the investment account with the fair value adjustments required to fully record Micron's assets at fair market value.
3. Eliminate the investment income recorded by Synergy and replace that account with the income statement of Micron. If less than 100% of the subsidiary is owned, the investment income reported by the Synergy is equal to its proportionate share, and an additional expense for the balance is reported for the *minority interest* in Micron's earnings.
4. Record the depreciation of the fair value adjustment for Micron's PP&E and the amortization of the trademark. Note, there is no amortization of goodwill under current GAAP.

There are several important points to understand about the consolidation process:

- The consolidated balance sheet includes the book value of Synergy and the fair market value of Micron as of the acquisition date, less depreciation/amortization of the excess of the Micron market value over its book value. The investment account on the investor's balance sheet has been replaced by the investee company balance sheet to which it relates. Further, the additional tangible and intangible assets purchased have been recognized as an increase in the carrying amount of currently reported assets (write-up of PPE) and as additional assets (trademark and goodwill).
- The consolidated income statement includes the income statements of both Synergy and Micron. The investment income recorded by Synergy on its books is replaced by the income statement of Micron. In addition, depreciation expense includes the depreciation expense that Micron records on the book value of its depreciable assets plus the depreciation of the excess of fair market value over book value recorded upon acquisition of Micron. Second, the newly created trademark asset is amortized over its useful life, resulting in additional expense of $6,000. The goodwill recognized in the acquisition is not amortized.
- Goodwill is only recorded after recognizing the fair market values of all tangible and intangible assets acquired. Companies are required to identify any intangible assets acquired. These intangibles are deemed to have an identifiable useful life and are, therefore, subject to annual amortization.

MICKEY'S PROFITS IMPROVE

Changes in the accounting for goodwill have increased Walt Disney Company's earnings. Disney's acquisition of CapitalCities/ABC resulted in goodwill of $19.2 billion. The $480 million annual hit to Disney's earnings from goodwill amortization is no longer present under current accounting rules.

Impairment of Goodwill

Goodwill recorded in the consolidation process has an indefinite life and is, therefore, not amortized. It is, however, subject to annual review for impairment. This review is a two step process. In the first step, the fair market value of Micron is compared with the book value of its associated investment account on Synergy's books ($912,000 as of December 31, Year 2). The fair market value of Micron can be determined using a number of alternative methods, such as quoted market prices of comparable businesses, or a discounted free cash flow valuation method. If the current market value is less than the investment balance, goodwill is deemed to be impaired and an impairment loss must be recorded in the consolidated income statement.

Assume that the fair market value of Micron is estimated to be $700,000 as of December 31, Year 2, and that the fair market value of the net tangible and identifiable

intangible assets is $660,000. This results in an impairment loss of $60,000 as follows:

Fair market value of Micron		$ 700,000
Current assets	$ 520,000	
PP&E	570,000	
Trademark	20,000	
Liabilities	(450,000)	
Net assets		660,000
Implied goodwill		40,000
Current balance goodwill		(100,000)
Impairment loss		$ 60,000

The resulting entry on Synergy's books is:

Goodwill impairment loss	60,000	
Investment in Micron		60,000

The impairment loss will be reported as a separate line item in the operating section of Synergy's consolidated income statement. In addition, a portion of the goodwill contained in Synergy's investment account is written off, and the balance of goodwill in the consolidated balance sheet is reduced accordingly. Disclosures are also required detailing the facts and circumstances resulting in the impairment, and the method by which Synergy determines the fair market value of Micron.

Issues in Business Combinations

Contingent Consideration

In some business combinations, the parties cannot agree on a price. This yields the notion of *contingent consideration,* where it is agreed that additional money will be paid by the buyer to the seller if future performance goals are met by the combined company. Under current accounting, that future *earn-out* payment is recognized as additional purchase cost when the money is paid (typically as an increase in goodwill). The FASB has proposed a revision to the business combination standard that includes new accounting for contingent consideration. In the proposed standard, the fair value of the business being acquired must be determined as of the date of the acquisition. Embedded in the arrangement would be the fair value of the buyer's obligation for contingent payments. That amount would be included in the purchase price. That is, the agreement for future payments must be fair-valued on the date of purchase *and* then continually revalued each subsequent quarter to reflect actual performance. This will result in earnings volatility as the contingent consideration is revalued.

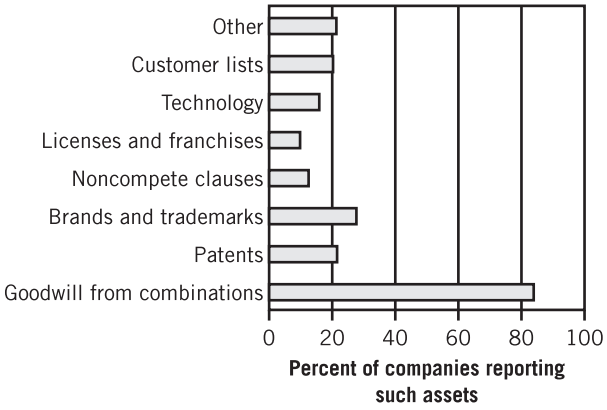
Allocating Total Cost

Once a company determines the total cost of an acquired entity, it is necessary to allocate this cost to individual assets. All identifiable assets acquired and liabilities assumed in a business combination are assigned a portion of the total cost, normally equal to their fair value at date of acquisition. Identifiable assets include intangible as well as tangible assets. *SFAS 141* requires companies to identify and value specific categories of intangible assets. These include the following:

1. Trademarks and other marketing-related assets.
2. Noncompetition agreements.

3. Customer lists, contracts, and other customer-related assets.
4. Artistic-related intangible assets such as literary or music works, and video and audiovisual material, including television programs and music videos.
5. Intangible assets relating to contractual relationships such as licensing, royalty, advertising, and management contracts, lease or franchise agreements, broadcast rights, employment contracts, and the like.
6. Patents, computer software, databases, trade secrets or formulae, and other technology-based intangible assets.

Types of Intangible Assets Reported by Companies



Only after the purchase price has been allocated to the fair market value of all tangible and identifiable intangible assets, less the market value of all liabilities assumed, can any of the purchase price be assigned to goodwill. The reason is that all assets other than goodwill have an identifiable useful life, resulting in depreciation and amortization expense. Goodwill, however, is deemed to have an indefinite life and is not amortized.

It is possible that market or appraisal values of identifiable assets acquired, less liabilities assumed, exceed the cost of the acquired company *(negative goodwill)*. In those rare cases, values otherwise assignable to noncurrent assets acquired (except long-term investments in marketable securities) are reduced by this excess. Then, the remainder, if any, is recorded in the income statement as an extraordinary gain net of tax.

In-Process Research and Development (IPR&D)

Some companies write off a large portion of an acquisition's costs as purchased research and development. Moreover, there has been a dramatic increase in such write-offs within the past decade, especially in the high-tech industry. Under prior GAAP, this practice was attractive as it allowed acquiring companies to reduce or even eliminate any allocation of the purchase price to goodwill and, thus, lower or avoid future earnings charges from the resulting goodwill amortization.

R&D SPENDING AND CEOS

A study reported that companies spent on average $8,300 per employee on R&D. However, CEOs with law degrees spent just $5,600 while those from operations spent $6,900. On the other hand, CEOs with marketing backgrounds spent $10,300, and those from R&D and engineering backgrounds spent the most: $10,500.

In the IPR&D write-off situation, companies value the IPR&D assets of the acquired companies before writing them off. However, there is no guidance on how to value IPR&D. Given the incentive to avoid recognizing IPR&D as goodwill, companies are alleged to value IPR&D as high as possible to increase the write-off and reduce or eliminate subsequent goodwill amortization. Such a write-off creates quality-of-earnings concerns if IPR&D is overstated because it would understate assets and overstate future return on equity (and assets).

The abuse of IPR&D write-offs led the SEC to investigate its use. Some acquisitions were, subsequently, challenged and the companies were required to restate historical financial statements. Recently, the FASB has proposed that IPR&D be capitalized and amortized rather than expensed.

Debt in Consolidated Financial Statements

Liabilities in consolidated financial statements do not operate as a lien upon a common pool of assets. Creditors, whether secured or unsecured, have recourse in the event of default only to assets owned by the specific corporation that incurred the liability. If a

parent company guarantees a liability of a subsidiary, then the creditor has the guarantee as additional security with potential recourse provisions. The consolidated balance sheet does not help us assess the margin of safety enjoyed by creditors. To assess the security of liabilities, our analysis must examine the individual financial statements of each subsidiary. We must also remember that legal constraints are not always effective measures of liability. For example, American Express recently covered the obligations of a warehousing subsidiary not because of any legal obligation, but because of concern for its own reputation.

ANALYSIS VIEWPOINT ***. . . YOU ARE THE LAWYER***

One of your clients calls on you with a legal matter. Your client has nearly all of her savings invested in the common stock of NY Research Labs, Inc. Her concern stems from the financial statements of NY Research Labs that were released yesterday. These financial statements are, for the first time, consolidated statements involving a subsidiary, Boston Chemicals Corp. Your client is concerned her investment in NY Research Labs is now at greater risk due to several major lawsuits against Boston Chemicals—some have the potential to bankrupt Boston Chemicals. How do you advise your client? Should she be more concerned about her investment in NY Research Labs because of the consolidation?

Gains on Subsidiary IPOs

Tycom, Ltd., a wholly owned subsidiary of Tyco International, Ltd., sold previously unissued shares to outside parties in an initial public offering (IPO). As a result of the sale, Tyco International, Ltd.'s percentage ownership in Tycom, Ltd., decreased from 100% to 89% and the parent company recorded a pretax gain of $2.1 billion ($1.01 billion after tax) in its consolidated statement of income. IPOs by subsidiaries are becoming increasingly common as companies seek to capture unrecognized gains in the value of their subsidiary stock holdings while, at the same time, retaining control over their subsidiaries.

The rationale for the gain treatment can be seen from this example: assume that Synergy owns 100% of Micron with a book value of stockholders' equity of $1,000,000 and records the investment in Micron at $1,000,000. Micron sells previously unissued shares for $500,000 and, thereby, reduces Synergy's ownership to 80%. Synergy now owns 80% of a subsidiary with a book value of $1,500,000 for an investment equivalent of $1,200,000. The value of its investment account has thus risen by $200,000. The FASB formally supports the treatment of this "gain" as an increase in additional paid-in capital. The SEC, however, in *Staff Accounting Bulletin 51,* allows companies to record the credit to either additional paid-in capital or to earnings. The effect on stockholders' equity of Synergy is the same. But in the first alternative, stockholders' equity is increased by an increase in additional paid-in capital. In the second alternative, stockholders' equity is increased via the closure of net income to retained earnings and a gain is recorded in the statement of income.

Preacquisition Sales and Income

When an acquisition of a subsidiary occurs in midyear companies only report their equity in subsidiary income from the acquisition date forward. There are, however,

two methods available under GAAP *(Accounting Research Bulletin 51)*, to accomplish this:

1. The company can issue a consolidated income statement with sales, expenses, and income of the subsidiary from the acquisition date forward.
2. The company can report in its consolidated income statement subsidiary sales and expenses for the entire year and back out preacquisition earnings so that only postacquisition earnings are included in consolidated net income.

The effect on consolidated net income is the same for either method, that is, only net income of the acquired company subsequent to the acquisition date is included in consolidated earnings. Top line (sales) growth, however, can be dramatically different depending on the acquisition date and magnitude of the acquired company's sales. Companies whose growth occurs primarily via acquisitions (vs. "organic," or internal, growth) can be particularly troublesome for analysts.

The amount of preacquisition income is likely to be deemed immaterial and included in other expense categories rather than reported as a separate line item. One hint into the accounting method employed is to examine the pro forma disclosures required in the acquisitions footnote. Companies are required to report pro forma sales and income as if the investees had been included for the entire year. A comparison of these pro forma sales against reported consolidated sales can provide insight into the accounting choice made by management in this area.

Push-Down Accounting

Purchase accounting requires the assets and liabilities of an acquired company to be included in the consolidated financial statements of the purchaser at their market values. A controversial issue is how the acquired company reports these assets and liabilities in its separate financial statements (if that company survives as a separate entity and is publicly traded). The SEC requires that purchase transactions resulting in an entity's becoming substantially wholly owned (as defined in Regulation S-X) establish a new basis of accounting for the purchased assets and liabilities if the acquired company issues securities in public markets. For example, if Company A acquires substantially all the common stock of Company B in one or a series of purchase transactions, Company B's financial statements must reflect the new basis of accounting arising from its acquisition by Company A. When ownership is under control of the parent, the basis of accounting for purchased assets and liabilities should be the same regardless of whether the entity continues to exist or is merged into the parent's operations. That is, Company A's cost of acquiring Company B is "pushed down" and used to establish a new accounting basis in Company B's separate financial statements. The SEC recognizes that the existence of outstanding public debt, preferred stock, or significant minority interest in a subsidiary can impact a parent's ability to control ownership. In these cases, the SEC has not insisted on push-down accounting.

Additional Limitations of Consolidated Financial Statements

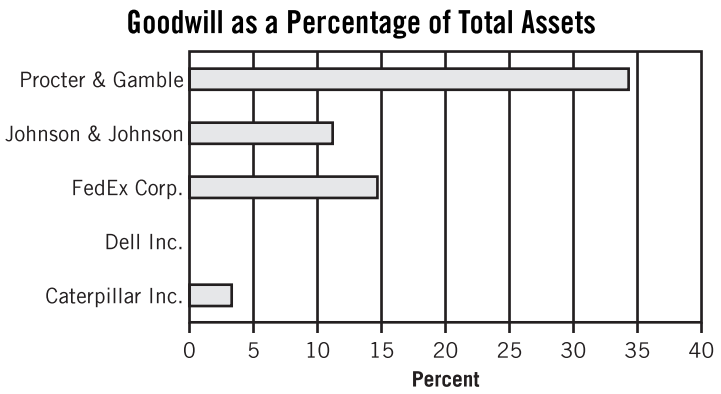
Consolidated financial statements often are meaningful representations of the financial condition and results of operations of the parent-subsidiary entity. Nevertheless, there are limitations in addition to those already discussed.

- Financial statements of the individual companies composing the larger entity are not always prepared on a comparable basis. Differences in accounting principles,

valuation bases, amortization rates, and other factors can inhibit homogeneity and impair the validity of ratios, trends, and other analyses.

- Consolidated financial statements do not reveal restrictions on use of cash for individual companies. Nor do they reveal intercompany cash flows or restrictions placed on those flows. These factors obscure the relation between liquidity of assets and the liabilities they aim to meet.
- Companies in poor financial condition sometimes combine with financially strong companies, thus obscuring our analysis–because assets of one member of the consolidated entity cannot necessarily be seized to pay liabilities of another.
- Extent of intercompany transactions is unknown unless the procedures underlying the consolidation process are reported–consolidated statements generally reveal only end results.
- Accounting for the consolidation of finance and insurance subsidiaries can pose several problems for analysis. Aggregation of dissimilar subsidiaries can distort ratios and other relations–for example, current assets of finance subsidiaries are not generally available to satisfy current liabilities of the parent. Assets and liabilities of separate entities are not interchangeable, and consolidated financial statements obscure the priorities of creditors' claims.

Consequences of Accounting for Goodwill



The excess of the purchase price over the market value of identifiable net assets acquired represents payment for super (abnormal) earnings. Superearnings are attributed to brand names and other items offering superior competitive position. Superior competitive position is subject to change from a myriad of economic and environmental forces. With effort and opportunity, a company can maintain a superior position. Nevertheless, goodwill is not permanent.

The residual measurement of goodwill gives rise to potential measurement problems. For example, payments resulting from errors of estimation, of intense bidding contests, or of carelessness with owner or creditor resources get swept into goodwill. These payments can even include finder's fees, legal costs, investment banker fees, and interim financing costs. Warren Buffett, chairman of Berkshire Hathaway, recognized this residual measurement of goodwill in writing to his shareholders: "When an overexcited management purchases a business at a silly price . . . silliness ends up in the goodwill account. Considering the lack of managerial discipline that created the account, under the circumstances it might better be labeled no-will." The crux of this issue is: Does goodwill represent superior earnings power and do its benefits extend to future periods? Our analysis must realize that in too many cases the answer is no.

If companies do write off goodwill in the face of substantial losses by purchased subsidiaries, the timing of the write-off seldom reflects prompt recognition of this loss in value. The following case reflects this.

ANALYSIS EXCERPT

Bangor Punta Corporation acquired Piper Aircraft for payment that included a substantial amount for goodwill. Ultimately, time revealed that this payment was for superlosses rather than superearnings. In one period, Bangor Punta earned $3.1 million on a consolidated basis, while Piper Aircraft lost $22.4 million. Only when confronting a subsequent operating loss of $38.5 million by Piper Aircraft and an overall consolidated loss did Bangor Punta write off the Piper Aircraft goodwill of $54.7 million. It also appears that Bangor Punta did so with a "big bath." That is, recognition of the write-off was delayed until its impact was diminished by Bangor Punta's own loss (it took all the hits at one time). This write-off also yielded the beneficial side effect of relieving Bangor Punta's future income of goodwill amortization charges.

To help in our analysis, we might better understand goodwill and its implications for analysis if we compare the accounting definition of goodwill to the usual analyst's definition:

Accounting definition of goodwill. Goodwill is the excess of cost over fair market value of net assets acquired in a purchase transaction. No attempt is made to explicitly identify components of this asset or the economic values assigned to them. Whatever has been paid for and that cannot be separately identified is assigned to goodwill.

Analyst's definition of goodwill. Goodwill reflects real economic value such as that due to brand names requiring costly development and maintenance. Goodwill can also reflect overpayments attributed to unrealistic expectations, undisciplined zeal, or lack of sound judgment and proper analysis. Evaluation of goodwill requires careful analysis of a company's competitive market position and superior earning power with respect to its operations. Goodwill represents a nonpermanent advantage that must manifest itself in superior earning power; if not, it does not exist.

Analysis of goodwill continues to be challenging. Billions of dollars in goodwill are on corporate balance sheets. In certain companies, it represents a substantial part of net assets or even exceeds total equity. Payment for superior earning power is warranted. Still, analysis must be aware that in many cases goodwill is nothing more than mechanical application of accounting rules giving little consideration to value received in return. The process by which billions of dollars in goodwill are placed on balance sheets is illustrated by the battle for control of RJR Nabisco:

ANALYSIS EXCERPT

Prior to the bidding battle for RJR Nabisco, the market (dominated by financial institutions holding 40 percent of its stock) valued the company at about $12 billion. A group, led by RJR Nabisco's CEO, started the bidding by offering $17 billion for the company—$5 billion more than the value assigned to it by the market. RJR Nabisco was eventually sold for $25 billion, including $13 billion in goodwill. Undoubtedly swept into this account were significant costs of financing, professional and investment banking talent, and other expenses involved in this costly bidding war. A reasonable analysis concern is the extent to which goodwill reflects, or does not reflect, the present value of future residual income (superearnings).

Finally, our analysis must also realize that goodwill on corporate balance sheets typically fails to reflect a company's entire intangible earning power (due to market position, brand names, or other proprietary advantages). That is, under generally accepted accounting principles, internally developed goodwill cannot be recorded as an asset. This is evidenced in the case of Altria Group, Inc.

ANALYSIS EXCERPT

Altria (formerly Philip Morris) acquired General Foods for $5.8 billion, of which about $2.8 billion was payment for goodwill. General Foods' brand names arguably justify this premium. On Altria's balance sheet, goodwill makes up nearly 80% of equity. Yet, it does not include the considerable value of Altria's own brand names.

Pooling Accounting for Business Combinations

Prior to the passage of the current business combination accounting standards, companies were allowed to use an alternate accounting method: pooling of interest. Although disallowed for business combinations initiated subsequent to June 30, 2001, companies may continue the use of pooling accounting for acquisitions accounted for under that method prior to the effective date of the standard. Pooling accounting was widely used and will continue to impact financial statements for many years to come. It is important, therefore, for analysts to understand the accounting for business combinations under this method. This section describes the mechanics of pooling accounting and follows with a discussion of the analysis implications.

The difference between the pooling and purchase accounting methods lies in the amount recorded as the initial investment in the acquired company. Under the purchase method, as we have seen, the investment account is debited for the purchase price, that is, the fair market value of the acquired company on the date of acquisition. Under the pooling method, this debit is in the amount of the book value of the acquired company. Assets are not written up from the historical cost balances reported on the investee company balance sheet, no new intangible assets are created in the acquisition, and no goodwill is reported. The avoidance of goodwill was the principle attraction of this method as companies would thereby avoid the subsequent earnings drag from goodwill amortization.

Mechanics of Pooling-of-Interest Accounting

Continuing with our previous example, under pooling accounting, the initial investment is recorded as follows:

Investment in Micron	620,000	
Common stock		50,000 (at par value)
Additional paid-in capital		80,000
Retained earnings		490,000

The investment account is $150,000 less than in our previous example as the assets of the acquired company are recorded at book value rather than market value. In addition, Synergy records beginning retained earnings and paid-in capital (common stock and additional paid-in capital) equal to that of Micron as of the beginning of the year.

During the year, Micron earns $150,000. The investment is accounted for under the equity method and has a balance on Synergy's books at December 31, Year 2, as follows:

Beginning balance (12/31/Y1)	$620,000
Investment income	150,000
Dividends	0
Ending balance (12/31/Y2)	$770,000

The consolidated balance sheet under pooling accounting is as follows:

SYNERGY CORP. AND SUBSIDIARY
Trial Balances and Consolidated Financial Statements
For Year Ended December 31, Year 2
Prepared under the Pooling Accounting Method

	Synergy	Micron	Debits	Credits	Consolidated
Revenues	$ 610,000	$ 370,000			$ 980,000
Cost of goods sold	(270,000)	(140,000)			(410,000)
Depreciation expense	(115,000)	(80,000)			(195,000)
Amortization expense	0	0			0
Investment income	150,000	0	[2]$150,000		0
Net income	$ 375,000	$ 150,000			$ 375,000
Retained earnings, 1/1/Y1	$1,170,000	$ 490,000	[1] 490,000		$1,170,000
Net income	375,000	150,000			375,000
Dividends paid	(90,000)				(90,000)
Retained earnings, 12/31/Y2	$1,455,000	$ 640,000			$1,455,000
Cash	$ 105,000	$ 20,000			$ 125,000
Receivables	380,000	220,000			600,000
Inventory	560,000	280,000			840,000
Investment in Micron	770,000	0		[1]$620,000 [2] 150,000	0
Plant, property, and equipment, net	1,880,000	720,000			2,600,000
Total assets	$3,695,000	$1,240,000			$4,165,000
Liabilities	$ 780,000	$ 470,000			$1,250,000
Common stock	800,000	100,000	[1] 100,000		800,000
Additional paid-in capital	660,000	30,000	[1] 30,000		660,000
Retained earnings	1,455,000	640,000			1,455,000
Total liabilities and equity	$3,695,000	$1,240,000	$770,000	$770,000	$4,165,000

The original balance of the investment account on the purchase date ($620,000) represents the book value of Micron's stockholder's equity. It consists of the beginning of the year retained earnings plus Micron's paid-in capital (common stock plus additional paid-in capital). In contrast to the purchase method, however, the investment balance

does not include the fair market value of the tangible assets, the previously unrecognized trademark, and the goodwill purchased in the acquisition. The two consolidation entries accomplish the following:

1. Replace $620,000 of the investment account with the book value of the assets acquired.
2. Eliminate the investment income recorded by Synergy and replace that account with the income statement of Micron.

There are several important points to understand about the consolidation process using the pooling method:

- The consolidated balance sheet includes the book value of both Synergy and Micron.
- The consolidated income statement includes the income statements of both Synergy and Micron. Depreciation is only computed on the historical book values of both companies, not the acquisition price. Net income is, therefore, higher.
- There is no recognition of the unrecorded trademark or goodwill. Consequently, prior to the passage of the current business accounting standards, this would have avoided amortization of goodwill.
- The income of Micron is included for the entire year in the year of acquisition, not subsequent to the acquisition date.

The difference in net income between purchase and pooling is due to pooling's reporting of fixed assets at $720,000 (their historical cost to Micron) and the consequent omission of the excess depreciation/amortization expense. This example emphasizes that reporting of income for the combined company at either $367,000 or $375,000 depends on how the acquisition is accounted for. Note that revaluation of assets and liabilities, or absence thereof, is the fundamental difference between pooling and purchase accounting. Pooling potentially understates assets and overstates income in current and future periods. This heightens our concern with potentially inflated earnings from pooling accounting.

For analysis, we summarize likely consequences from pooling accounting for the combined company that markedly distinguish it from purchase accounting:

- Assets are acquired and carried at book value and not the market value of the consideration given. To the extent goodwill or other identifiable intangible assets are purchased, the acquiring company does not report them on its balance sheet.
- Understatement of assets yields understatement in combined company equity.
- Understatement of assets (including inventory, property, plant, equipment, goodwill, and intangibles) yields understatement of expenses (such as cost of goods sold, depreciation, and amortization) and overstatement of income.
- Understatement of assets yields likely overstatement of gains on asset disposition.
- Understatement of equity or overstatement of income yields overstatement in return on investment ratios.
- Income statements and balance sheets of the combined entity are restated for all periods reported. (Under purchase accounting, they are combined and reported *postacquisition*–although pro forma statements showing preacquisition combined results are typically furnished.)

Restating prior periods' statements can lead to a type of double counting similar in effect to an acquirer of a pooled company reporting gains on the sale of undervalued acquired (pooled) assets. Such a case is evidenced in the following.

MURKY POOL

In one acquisition accounted for as a pooling, Applied Materials paid $1.8 billion to take over Etec Systems, a maker of laser gear. Etec's book value was $249 million—meaning that $1.5 billion of the purchase price is not recorded on the books.

ANALYSIS EXCERPT

Blockbuster Entertainment enhanced earnings by means of acquisitions accounted for as poolings. This arguably inflated its stock price—used to consummate additional poolings. Blockbuster acquired its largest franchisee, Video Superstore, for stock. Blockbuster's past sales of video tapes to Video Superstore contributed greatly to Blockbuster's profits. When Video Superstore was pooled, the revenues and profits related to the intercompany video tape sales were eliminated in comparative statements. With these prior sales and profits reported at now lower levels, Blockbuster's growth curve appeared all the more impressive.

One crude adjustment for omitted values in a pooling transaction is to estimate the difference between reported amounts and the market value of assets acquired. This difference would then be amortized against reported income on some reasonable basis to arrive at results comparable to those achieved under purchase accounting. Generally, purchase accounting is designed to recognize the acquisition to which a buyer and seller in a business acquisition agree. As such, it is more relevant for our analysis needs provided we are interested in market values at the date of a business combination rather than the original costs of the seller.

ANALYSIS VIEWPOINT ***. . . YOU ARE THE INVESTMENT BANKER***

Your client, LA Delivery, requests your services in offering common stock to potential shareholders. You are excited about this engagement for, among other reasons, you are offered a 7% fee for services. Prior to accepting the engagement, you perform an analysis of the company and its financial statements. One matter concerns you. You discover LA Delivery recently acquired Riverside Trucking. LA Delivery accounts for this acquisition using pooling accounting. Your concern stems from pooling accounting and its potential to understate assets of Riverside Trucking. This would imply a corresponding overstatement in income due to lower expenses attributed to less depreciation with the understated assets. Because Riverside Trucking's income is pooled with that of LA Delivery's income, the income number and financial ratios based on income are *inflated.* The pooling accounting used by LA Delivery is acceptable practice and is fully disclosed in the financial statements. Do you accept this engagement?

DERIVATIVE SECURITIES

Companies are exposed to different types of *market risks.* These risks arise because the profitability of business operations is sensitive to fluctuations in several areas such as commodity prices, foreign currency exchange rates, and interest rates. To lessen these market risks, companies enter into *hedging transactions.* **Hedges** are contracts that seek to insulate companies from market risks. A hedge is similar in concept to an insurance policy, where the company enters into a contract that ensures a certain payoff regardless of market forces. Financial instruments such as futures, options, and swaps are commonly used as hedges. These financial instruments are called *derivative financial instruments.* A **derivative** is a financial instrument whose value is derived from the value of another asset, class of assets, or economic variable such as a stock, bond, commodity price, interest rate, or currency exchange rate. However, a derivative contracted as a hedge can expose companies to considerable risk. This is either because it is difficult to find a derivative that entirely hedges the risk exposure, because the parties to the derivative contract fail to understand the potential risks from the instrument, or because the

counterparty (the other entity in the hedge) is not financially strong. Companies also have been known to use derivatives to speculate.

ANALYSIS EXCERPT

We have established strict counterparty credit guidelines and enter into transactions only with financial institutions of investment grade or better. We monitor counterparty exposures daily and any downgrade in credit rating receives immediate review. If a downgrade in the credit rating of a counterparty were to occur, we have provisions requiring collateral in the form of U.S. Government securities for substantially all our transactions. —Coca-Cola Co.

Derivative use has exploded in the past decade. The value of derivative contracts is now in the multitrillion dollar range. This increased use of derivatives, along with their complexity and risk exposure, has led the FASB to place derivative accounting at the forefront of its agenda, yielding a number of rulings in quick succession. The SEC also has called for additional disclosures in annual reports relating to risk exposure from derivatives. The accounting and disclosure requirements for derivatives are prescribed under *SFAS 133*. This section defines and classifies derivatives, describes the accounting and disclosure requirements, and concludes with a discussion of the analysis of derivatives.

Defining a Derivative

A variety of financial instruments are used for hedging activities, including the following:

- **Futures contract**–an agreement between two or more parties to purchase or sell a certain commodity or financial asset at a future date (called *settlement date*) and at a definite price. Futures exist for most commodities and financial assets. It also is possible to buy a futures contract on indexes such as the S&P 500 stock index.
- **Swap contract**–an agreement between two or more parties to exchange future cash flows. It is common for hedging risks, especially interest rate and foreign currency risks. In its basic form, a swap hedges both balance sheet and cash flow exposures. One example is an *interest-rate swap*. A company may wish to convert fixed interest-rate debt to variable rate debt (we discuss Campbell Soup's activities in this regard later in this section). The company works with an intermediary, typically a bank, to find another company with floating rate debt that seeks fixed rate debt. The two companies *swap* interest rates and the bank takes a fee for the transaction. A *foreign currency swap* is similar to an interest-rate swap, except its purpose is to hedge foreign currency risk rather than interest-rate risk.
- **Option contract**–grants a party the right, not the obligation, to execute a transaction. To illustrate, an option to purchase a security at a specific contract price at a future date is likely to be exercised only if the security price on that future date is higher than the contract price. An option also can be either a call or a put. A *call option* is a right to buy a security (or commodity) at a specific price on or before the settlement date. A *put option* is an option to sell a security (or commodity) at a specific price on or before the settlement date.

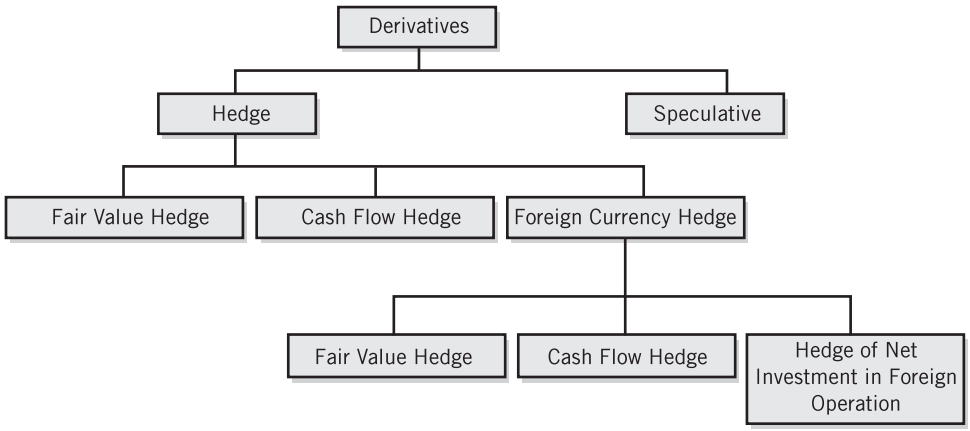
CREDIT DEFAULT SWAPS

Banks use these derivatives to insure against losses on corporate loans or bonds. The market has grown nearly 50% in recent years, to nearly $2 trillion. Yet the risk does not disappear—it is absorbed by the sellers of protection such as insurance companies (and other banks).

Accounting for Derivatives

Exhibit 5.6 shows the classification of derivatives for accounting purposes. All derivatives, regardless of their nature or purpose, are recorded at market value on the balance sheet. However, unlike fair value accounting for investment securities, where

Exhibit 5.6 **Classification of Derivatives for Accounting**



only assets and not corresponding liabilities are marked to market, the accounting for derivatives affects *both* sides of transactions (wherever applicable) by marking to market. This means if a derivative is an effective hedge, the effects of changes in fair values usually should cancel out and have a minimal effect on profits and stockholders' equity. Exhibit 5.7 summarizes the accounting for different derivatives. The accounting for derivatives is different depending on their classification by the company. Derivatives are, first, classified as fair value, cash flow, or foreign currency hedges. Then, the accounting for those derivatives, together with the asset or liability to which the derivatives relates, follows.

Unrealized gains and losses on fair value hedges as well as on the related asset or liability are recorded in income and affect current profitability. As long as the hedge is

Exhibit 5.7 **Accounting for Derivatives**

Derivative	Balance Sheet	Income Statement
Speculative	Derivative recorded at fair value	Unrealized gains and losses included in net income
Fair value hedge	Both derivative and hedged asset and/or liability recorded at fair value	Unrealized gains and losses on both derivative and hedged asset and/or liability included in net income
Cash flow hedge	Derivative recorded at fair value (offset by accumulated comprehensive income)	Unrealized gains and losses on effective portion of derivative are recorded in other comprehensive income until settlement date, after which transferred to net income; unrealized gains and losses on the ineffective portion of derivative are included in net income
Foreign currency fair value hedge	Same as fair value hedge	Same as fair value hedge
Foreign currency cash value hedge	Same as cash flow hedge	Same as cash flow hedge
Foreign currency hedge of net investment in foreign operation	Derivative (and cumulative unrealized gain or loss) recorded at fair value (part of cumulative translation adjustment in accumulated comprehensive income)	Unrealized gains and losses reported in other comprehensive income as part of translation adjustment

ILLUSTRATION 5.1

Helix Co. owns 5,000 shares of Prima as part of its available-for-sale securities. On October 1, 2005, Helix purchases 5,000 March 2006 put options (50 contracts) of Prima at an exercise price of $50 (market price of Prima on October 1, 2005, is $58) for $5 per option. On December 31, 2005, Prima's stock trades at $53 and its put option is valued at $7 per option. The balance sheet and income statement effects on Helix for the fourth quarter of 2005 follow:

BALANCE SHEET	10/1/05	12/31/05
Investment securities	$290,000	$265,000
Put option	25,000	35,000
Effect on total assets	$315,000	$300,000

INCOME STATEMENT	
Unrealized loss on securities	$(25,000)
Unrealized gain on put option	10,000
Effect on net income	$(15,000)

The net effect in the fourth quarter of 2005 is a charge of $15,000 to net income, which is matched by a corresponding decrease in total asset value. Notice that this put option is not a perfect hedge.

effective, this accounting does not affect profit and stockholders' equity in a material manner because balance sheet and income statement effects are largely offsetting. Illustration 5.1 provides an example of fair value hedge accounting.

Alternatively, unrealized gains and losses arising from cash flow hedges, are reported as part of other comprehensive income (as a component of stockholders' equity and not in current income) until the effective date of the transaction, after which they are transferred to income and are offset by the effect of the transaction itself. (Note that unrealized gains and losses on speculative hedges are reported immediately in income.) Illustration 5.2 provides an example of cash flow hedge accounting.

ILLUSTRATION 5.2

Ace Co. took a $5 million, five-year floating-interest-rate loan from a bank on January 1, 2005 (interest payable annually on December 31). On January 1, 2006, Ace swaps its future variable interest payments on this loan for fixed 8% interest payments. On December 31, 2006, Ace pays $400,000 (8% of $5 million) on the swap instrument–its interest payment on the original loan would have been $300,000 (6% of $5 million). This means the swap results in an excess annual interest payment of $100,000 for 2006. The present value of this expected excess interest payment from the swap as of December 31, 2006, is $267,300 (computed as $100,000 per year for three additional years discounted at 6% per annum). Ace's balance sheet effects as of December 31, 2005 and 2006, related to this swap are:

	12/31/05	12/31/06
Fair value of swap liability	$0	$267,300
Accumulated other comprehensive income	0	(267,300)
Effect on total liabilities and equity	$0	$ 0

Ace's income statement effects from the swap for year 2006 are:

Net income effect (interest expense)*	$(100,000)
Other comprehensive income effect (unrealized loss on marketable securities)†	(267,300)

**Realized loss for the year—excess interest payment for 2006.*

†Unrealized loss for the year—change in present value of future excess interest payments reflected in accumulated comprehensive income.

Ultimately, the gain or loss on the derivative, together with its cost, is reflected in net income under both fair value and cash flow hedge accounting. The difference in the accounting for the various hedges lies in the timing of the gain or loss recognition, that is, whether the gain or loss is recognized currently in income or deferred in OCI until the transaction is completed.

Disclosures for Derivatives

Companies are required to disclose qualitative and quantitative information about derivatives both in notes to financial statements and elsewhere (usually in the Management's Discussion and Analysis section). The purpose of these disclosures is to inform analysts about potential risks underlying derivative securities.

Qualitative Disclosures

Disclosures generally outline the types of hedging activities conducted by the company and the accounting methods employed. Many companies, for example, use derivatives to hedge interest-rate and foreign currency risks.

Quantitative Disclosures

Campbell Soup also provides quantitative information relating to its interest rate and foreign exchange hedging activities in the MD&A section of the annual report. These disclosures are provided in Exhibit 5.8.

Interest Rate Risk Exposure

Campbell Soup's hedging activities relating to interest rates employ swap agreements in order to maintain a desired relation between fixed- and floating-rate debt. The company indicates that it has entered into $875 million of fixed-to-variable swaps in order to increase the level of variable-rate debt. The fixed-to-variable interest-rate swap lowers the fixed rate debt to $1,674 million ($2,549 million − $875 million) and increases the floating-rate debt to $1,679 million ($804 million + $875 million), or 50% of the total.

Why would Campbell want to increase its percentage of floating-rate debt? Generally speaking, variable-rate debt carries a lower interest rate than fixed-rate debt. So, the company can lower its interest costs with this swap. It is also taking on interest-rate risk. However, this may not be as problematic as it may first appear. The amount of floating-rate debt the company can safely absorb depends on the covariance of EBITDA with interest rates. The higher this covariance, the greater percentage of debt the company can borrow on a floating-rate basis and not incur significant risk to reported profits should interest rates fluctuate in the future. Campbell Soup's target level of floating-rate debt referenced in the MD&A disclosure is determined on this basis.

Foreign Exchange Exposure

Campbell Soup reports that it has foreign exchange risk relating to transactions in non-$US currencies, investments in subsidiaries, and subsidiary debt denominated in foreign currencies. Campbell Soup utilizes cross-currency swaps and forward exchange contracts to hedge its risk on assets and liabilities denominated in foreign currencies, and indicates that it has outstanding $1,004 million of cross-currency swaps. As the $US strengthens (weakens) vis-à-vis foreign currencies, assets (liabilities) that are denominated in those currencies lose (gain) value. These losses (gains) on assets and liabilities are offset via gains (losses) in the foreign currency hedge, thus lessening the variability of its income.

Campbell Soup Market Risk Sensitivity Section—MD&A — *Exhibit 5.8*

Market Risk Sensitivity

The principal market risks to which the company is exposed are changes in commodity prices, interest rates and foreign currency exchange rates. In addition, the company is exposed to equity price changes related to certain employee compensation obligations. The company manages its exposure to changes in interest rates by optimizing the use of variable-rate and fixed-rate debt and by utilizing interest rate swaps in order to maintain its variable-to-total debt ratio within targeted guidelines. International operations, which accounted for approximately 36% of 2004 net sales, are concentrated principally in Australia, Canada, France, Germany, and the United Kingdom. The company manages its foreign currency exposures by borrowing in various foreign currencies and utilizing cross-currency swaps and forward contracts. Swaps and forward contracts are entered into for periods consistent with related underlying exposures and do not constitute positions independent of those exposures. The company does not enter into contracts for speculative purposes and does not use leveraged instruments.

The company principally uses a combination of purchase orders and various short- and long-term supply arrangements in connection with the purchase of raw materials, including certain commodities and agricultural products. The company may also enter into commodity futures contracts, as considered appropriate, to reduce the volatility of price fluctuations for commodities such as corn, cocoa, soybean meal, soybean oil, and wheat. At August 1, 2004, and August 3, 2003, the notional values and unrealized gains or losses on commodity futures contracts held by the company were not material.

The information below summarizes the company's market risks associated with debt obligations and other significant financial instruments as of August 1, 2004. Fair values included herein have been determined based on quoted market prices. The information presented below should be read in conjunction with Notes 16 and 18 to the Consolidated Financial Statements.

The table below presents principal cash flows and related interest rates by fiscal year of maturity for debt obligations. Variable interest rates disclosed represent the weighted-average rates of the portfolio at the period end. Notional amounts and related interest rates of interest rate swaps are presented by fiscal year of maturity. For the swaps, variable rates are the weighted-average forward rates for the term of each contract.

EXPECTED FISCAL YEAR OF MATURITY

(millions)	2005	2006	2007	2008	2009	Thereafter	Total	Fair Value
Debt								
Fixed rate	$ 6	$ 1	$ 606	$ 1	$ 301	$ 1,634	$ 2,549	$2,736
Weighted-average interest rate	2.87%	6.19%	6.20%	6.35%	5.88%	6.23%	6.17%	
Variable rate	$ 804						$ 804	$ 804
Weighted-average interest rate	3.30%						3.30%	
Interest Rate Swaps								
Fixed to variable			$ 200[2]		$175[3]	$ 500[4]	$ 875	$ —
Average pay rate[1]			5.11%		5.50%	5.15%	5.21%	
Average receive rate			6.20%		5.88%	4.95%	5.42%	

[1] Weighted-average pay rates estimated over life of swap by using forward LIBOR interest rates plus applicable spread.

[2] Hedges $100 million of 5.50% notes and $100 million of 6.90% notes due in 2007.

[3] Hedges $175 million of 5.875% notes due in 2009.

[4] Hedges $300 million of 5.00% notes and $200 million of 4.875% notes due in 2013 and 2014, respectively.

As of August 3, 2003, fixed-rate debt of approximately $2.6 billion with an average interest rate of 6.17% and variable-rate debt of approximately $1 billion with an average interest rate of 2.07% were outstanding. As of August 3, 2003, the company had also swapped $475 million of fixed-rate debt to variable. The average rate received on these swaps was 5.24% and the average rate paid was estimated to be 4.89% over the remaining life of the swaps. Additionally, the company had swapped $300 million of floating-rate debt to fixed. The swap matured in 2004.

The company is exposed to foreign exchange risk related to its international operations, including nonfunctional currency intercompany debt and net investments in subsidiaries.

The table below summarizes the cross-currency swaps outstanding as of August 1, 2004, which hedge such exposures. The notional amount of each currency and the related weighted-average forward interest rate are presented in the Cross-Currency Swaps table.

CROSS-CURRENCY SWAPS

(millions)	Expiration	Interest Rate	National Value	Fair Value	(millions)	Expiration	Interest Rate	National Value	Fair Value
Pay variable SEK	2005	4.01%	$ 18	$ (1)	Pay fixed CAD	2009	5.13%	$ 61	$ (5)
Receive variable USD		3.95%			Receive fixed USD		4.22%		
Pay fixed SEK	2005	5.78%	$ 47	$ (15)	Pay fixed GBP	2011	5.97%	$ 200	$ (44)
Receive fixed USD		5.25%			Receive fixed USD		6.08%		
Pay variable Euro	2005	2.71%	$ 137	$ 6	Pay fixed GBP	2011	5.97%	$ 30	$ (1)
Receive variable USD		2.38%			Receive fixed USD		5.01%		
Pay variable Euro	2006	3.06%	$ 32	$ 1	Pay fixed GBP	2011	5.97%	$ 40	$ 1
Receive variable USD		3.12%			Receive fixed USD		4.76%		
Pay variable GBP	2006	6.35%	$ 125	$ (11)	Pay fixed CAD	2014	6.24%	$ 61	$ (5)
Receive variable USD		3.80%			Receive fixed USD		5.66%		
Pay variable CAD	2007	4.89%	$ 53	$ (3)	Total			$1,004	$(154)
Receive variable USD		4.32%							
Pay fixed Euro	2007	5.46%	$ 200	$ (77)					
Receive fixed USD		5.75%							

The cross-currency swap contracts outstanding at August 3, 2003, represented two pay fixed SEK receive fixed USD swaps with national values of $31 million and $47 million, a pay fixed EURO receive fixed USD swap with a notional value of $200 million, and a pay fixed GBP receive fixed USD swap with a notional value of $200 million. The aggregate fair value of these swap contracts was $(97) million as of August 3, 2003.

The company is also exposed to foreign exchange risk as a result of transactions in currencies other than the functional currency of certain subsidiaries, including subsidiary debt. The company utilizes foreign exchange forward purchase and sale contracts to hedge these exposures.

Analysis of Derivatives

Objectives for Using Derivatives

Identifying a company's objectives for use of derivatives is important because risk associated with derivatives is much higher for speculation than for hedging. In the case of hedging, risk does not arise through strategic choice. Instead it arises from problems with the hedging instrument, either because the hedge is imperfect or because of unforeseen events. In the case of speculation, a company is making a strategic choice to bear the risk of market movements. Some companies take on such risk because they are in a position to diversify the risk (in a manner similar to that of an insurance company). More often, managers speculate because of "informed hunches" about market movements. We must realize that many companies (implicitly) speculate even when they suggest derivatives are used for hedging. One reason for this is that when a company hedges specific exposures it does not always hedge overall company risk (see the following discussion).

Risk Exposure and Effectiveness of Hedging Strategies

Once an analyst concludes a company is using derivatives for hedging, the analyst must evaluate the underlying risks for a company, the company's risk management strategy, its hedging activities, and the effectiveness of its hedging operations. Unfortunately, disclosures currently mandated under *SFAS 133* do not always provide meaningful information to conduct a thorough analysis. For example, Campbell Soup uses fixed-to-variable swaps to achieve a targeted percentage of variable-rate debt and takes on interest-rate risk in the process. The company does not, however, provide information to describe the method by which it arrives at this targeted percentage, nor does it describe the level of interest-rate risk that it is undertaking in the process. Likewise, the company does not provide information on the degree of foreign exchange exposure and the extent to which this has been mitigated by the use of cross-currency swaps and forward contracts.

SFAS 133 was principally designed to provide readers with current values of derivative instruments and the effect of changes in these values on reported profitability. Oftentimes, however, the fair market values are immaterial and the notional amounts do not provide information necessary to evaluate the effectiveness of the company's hedging activities. Companies are not required to quantify, for example, the extent to which exposures have been mitigated via hedging activities which would, if disclosed, provide investors and creditors with a greater understanding of the effectiveness of the hedging strategy.

Transaction-Specific versus Companywide Risk Exposure

Companies hedge specific exposures to transactions, commitments, assets, and/or liabilities. While hedging specific exposures usually reduces overall risk exposure of the company to an underlying economic variable, companies rarely use derivatives with an aim to hedge overall companywide risk exposure. Moreover, accounting rules disallow hedge accounting unless the hedge is specifically linked to an identifiable asset, liability, transaction, or commitment. This raises a broader question: What is the ultimate purpose of hedging? If the purpose of hedging is to reduce overall business risk by reducing the sensitivity of a company's cash flows (or net asset values) to a specific risk factor, then does hedging individual risk exposures achieve this? It probably does, but not necessarily. To see this, Illustration 5.3 shows how hedging a specific risk exposure *increases* a company's overall exposure to this risk.

ILLUSTRATION 5.3

Dynamics Co. takes government contracts on a cost plus basis. This means Dynamics is allowed to add a profit margin equal to a fixed percentage of its cost. A major allowable element of its cost is interest. Dynamics finances its operations largely with variable interest rate loans. In a move to reduce volatility of its interest payments, Dynamics enters into a floating-for-fixed interest-rate swap. What is the impact of this hedge on Dynamics' overall cash flow volatility? To help answer this, recall that Dynamics' profit margin is a fixed percentage of cost, and that cost includes interest. This implies any increase in interest is automatically hedged through the cost-plus-basis contract, and that its profit margin is *positively* related to interest. Consequently, if Dynamics hedged its variable interest with a variable-for-fixed interest-rate swap, then its cash flow risk exposures to changes in interest rates *increase.*

The relevant analysis question is whether rational managers enter into derivative contracts that increase overall companywide risk. In some cases the answer is yes. Such actions can arise because of the size and complexity of modern businesses and the difficulty of achieving *goal congruence* across different divisions of a company. For example, the treasury department of a company might be responsible for controlling financing cash flows and then enter into interest-rate swaps to reduce volatility of interest payments even though these interest payments could be negatively correlated with the company's operating cash flows. Similarly, the American and European divisions of a company might hedge currency risk exposures with conflicting aims because each division is attempting to manage its specific risk exposure without considering overall companywide risk. An analyst must evaluate overall companywide effects of derivatives and be aware that hedging specific risk exposures does not necessarily ensure hedging of companywide risk.

Inclusion in Operating or Nonoperating Income

Another analysis issue is whether to view unrealized (and realized) gains and losses on derivative instruments as part of operating or nonoperating income. To the extent derivatives are hedging instruments, then unrealized and realized gains and losses should not be included in operating income. Also, the fair value of such derivatives should be excluded from operating assets. This classification is clear for derivative instruments that hedge interest-rate movements since the underlying exposure (usually interest expense or interest income) is itself a nonoperating item. For hedging of other types of risks, such as foreign currency and commodity price risks, classification is less clear.

GLOBAL HEDGE

By locating plants in countries where it does business, so its costs are in the same currency as its revenues, IBM reduces the impact of currency swings without hedging.

Analysis Research

DO DERIVATIVES REDUCE RISK?

Researchers have investigated managerial motivations for using derivatives, along with the impacts of derivative use, for company risk. While there is mixed evidence about whether derivatives are used for hedging or speculative purposes, the preponderance of evidence suggests that managers use derivatives to hedge overall companywide risk. Companies that invest in derivatives reveal a marked decline in risk as reflected in reduced stock returns' volatility. The reduction in risk exposure to the underlying risk type (such as interest-rate exposure and foreign currency exposure) is even more striking. Overall, evidence shows that, on average, managers use derivatives for hedging specific risk exposures that ultimately reduce overall companywide risk.

That is, gains and losses (and fair values) from derivatives are nonoperating when (1) hedging activities are not a central part of a company's operations and (2) including effects of hedging in operating income conceals the underlying volatility in operating income or cash flows. However, when a company offers risk management services as a central part of its operations (as many financial institutions do), we must view all speculative gains and losses (and fair values) as part of operating income (and operating assets or liabilities).

THE FAIR VALUE OPTION

The FASB has recently made significant strides toward reporting all financial assets and liabilities on a fair value basis. *SFAS 157* provides a unified framework for fair value accounting. *SFAS 159* provides companies with the option of selectively reporting financial assets and liabilities at fair value. Both standards prescribe detailed note disclosures. We introduced the concept of fair value in Chapter 2 and provided a conceptual overview of fair value accounting. In this section we will discuss the recent fair value reporting and disclosure requirements for financial assets and liabilities.

Fair Value Reporting Requirements

Assets and Liabilities Eligible for the Fair Value Option

SFAS 159 allows companies to report a wide range of financial assets and liabilities on fair value basis. These include investments in debt and equity securities, financial instruments, derivatives, and various types of financial obligations. However, the following are not allowed to be reported on fair value basis under *SFAS 159* (even though they may appear to be in the nature of financial assets or obligations): (1) investment in subsidiaries that need to be consolidated, (2) postretirement benefit assets and obligations, (3) lease assets and obligations, (4) certain types of insurance contracts, (5) loan commitments, and (6) equity method investments under certain conditions.

Selective Application

Companies are allowed substantial flexibility to selectively apply the fair value option to individual assets or liabilities. The flexibility is allowed even within a specific asset class. For example, a company may apply the fair value option to certain available-for-sale securities but not for others. However, once the fair value option is applied to a particular asset (or liability), then it cannot be reversed.

Reporting Requirements

If a company chooses the fair value option for an asset or liability, then the following reporting rules apply:

- The carrying amount of the asset (or liability) in the balance sheet will always be at its fair value on the measurement date.
- All changes in the fair value of the asset (or liability), including unrealized gain and losses, will be included in net income. In other words, assets and liabilities subject to the fair value option will be accounted for in similar manner to trading securities.
- The manner in which the unrealized gain/loss will be included is not specified. Companies may choose to report the unrealized gain/loss portion differently from cash flow components (such as interest, dividends, or realized gain/loss) or together.

Fair Value Disclosures

Exhibit 5.9 provides details from the fair value footnote of Wells Fargo Bank's September 2007 10Q. We also report the abbreviated balance sheet as on September 30, 2007, and the income statement for the nine-month period ending September 2007. Wells Fargo reports that it elected to exercise the fair value option for (1) prime residential mortgages

Fair Value Disclosures—Wells Fargo Bank ***Exhibit 5.9***

Abridged Financial Statements for the Nine Months Ended September 30, 2007

BALANCE SHEET

	$ million
Assets	
Cash and short-term investments	$ 16,746
Trading assets	7,298
Securities available for sale	57,440
Mortgages held for sale ($26,714 at fair value)	29,699
Loans held for sale	1,011
Loans net of allowance for losses	359,093
Mortgage servicing rights ($18,223 at fair value)	18,683
Premises and equipment	5,002
Goodwill	12,018
Other assets	41,737
	$548,727
Liabilities and Stockholders' Equity	
Deposits	$334,956
Short-term borrowing	41,729
Long term debt	95,592
Other liabilities	28,712
	500,989
Stockholders' equity	47,738
	$548,727

INCOME STATEMENT

	$ million
Interest income	$25,935
Interest expense	10,449
Provision for credit losses	2,327
Net interest income after provision	13,159
Noninterest income	
Fees, service charges, leases	7,872
Mortgage banking	2,302
Insurance	1,160
Net gains on available for sale investments	661
Other	1,704
	13,699
Administrative expenses	16,754
Income before tax	10,104
Tax provision	3,298
Net income	**$ 6,806**
Other comprehensive income:	
Foreign currency translation	$ 24
Pensions adjustment	17
Unrealized loss on available for sale securities	(226)
Unrealized gains on derivative securities	174
Comprehensive income	**$ 6,795**

Note 16. Fair Value of Assets and Liabilities

Effective January 1, 2007, upon adoption of *SFAS 159,* The Fair Value Option for Financial Assets and Financial Liabilities, including an amendment of FASB Statement No. 115, we elected to measure mortgages held for sale (MHFS) at fair value prospectively for new prime residential MHFS originations for which an active secondary market and readily available market prices currently exist to reliably support fair value pricing models used for these loans. We also elected to remeasure at fair value certain of our other interests held related to residential loan sales and securitizations. We believe the election for MHFS and other interests held (which are now hedged with free-standing derivatives (economic hedges) along with our MSRs) will reduce certain timing differences and better match changes in the value of these assets with changes in the value of derivatives used as economic hedges for these assets. There was no transition adjustment required upon adoption of *SFAS 159* for MHFS because we continued to account for MHFS originated prior to 2007 at the lower of cost or market value. Upon adoption of *SFAS 159,* we were also required to adopt *SFAS 157,* Fair Value Measurements. In addition, we elected to measure mortgage servicing rights (MSRs) at fair value effective January 1, 2006, upon adoption of *SFAS 156,* Accounting for Servicing of Financial Assets.

(continued)

***Fair Value Disclosures—Wells Fargo Bank** (concluded)*

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis.

	SEPTEMBER 30, 2007			
(in millions)	**Total**	**Level 1**	**Level 2**	**Level 3**
Trading assets	$ 7,298	$ 1,403	$ 5,385	$ 510
Securities available for sale	57,440	32,734	20,969	3,737
Mortgages held for sale	26,714	—	26,636	78
Mortgage servicing rights (residential)	18,223	—	—	18,223
Other assets	1,060	791	249	20
Total	$110,735	$ 34,928	$53,239	$22,568
Other liabilities	$ (3,079)	$(1,936)	$ (822)	$ (321)

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis are summarized as follows:

(in millions)	**Trading Assets (excluding derivatives)**	**Securities Available for Sale**	**Mortgages Held for Sale**	**Mortgage Servicing Rights (residential)**	**Net Derivative Assets and Liabilities**	**Other Liabilities (excluding derivatives)**
Nine months ended September 30, 2007						
Balance, beginning of period	$360	$3,447	$—	$17,591	$(68)	$(282)
Total net losses for the period included in:						
Net income	(31)	—	(1)	(951)	(259)	(47)
Other comprehensive income	—	(8)	—	—	—	—
Purchases, sales, issuances and settlements, net	181	298	16	1,583	297	54
Net transfers into/out of Level 3	—	—	63	—	4	—
Balance, end of period	$510	$3,737	$78	$18,223	$(26)	$(275)
Net unrealized gains (losses) included in net income for the period relating to assets and liabilities held at September 30, 2007 (1)	$ 15	$ —	$ (1)	$1,341	$(22)	$ (48)

The assets accounted for under *SFAS 159* are initially measured at fair value. Gains and losses from initial measurement and subsequent changes in fair value are recognized in earnings. The changes in fair values related to initial measurement and subsequent changes in fair value that are included in current period earnings for the nine months ended September 30, 2007, are as follows: (1) for mortgages held for sale (MHFS), $477 million gain included in mortgage banking noninterest income; and (2) for other interests held, $32 million loss included in other noninterest income.

held for resale (MHFS) and (2) certain interest related to residential loan sales and securitization. In the adjacent table, Wells Fargo reports details of various assets and liabilities that have been recorded at fair value on the balance sheet. Not all of them are those for which the fair value option has been exercised. For example, residential mortgage servicing rights (MSR) are recorded at fair value under an earlier standard *(SFAS 156)* that Wells Fargo adopted in the previous year. More importantly, trading and available-for-sale investment securities are recorded at fair value on the balance sheet under *SFAS 115*. Has Wells Fargo exercised the fair value option for investment

securities? The income statement shows that Wells Fargo reports an unrealized loss of $226 million on available-for-sale as part of other comprehensive income. This reveals that Wells Fargo has not adopted the fair value option for these investments; under the fair value option, the unrealized loss would be included in net income. Also, when we examine the balance sheet, we see that Wells Fargo has not adopted the fair value option for all mortgages held for resale (MHFS) and mortgage servicing rights (MSR): only $26.714 billion of the $29.699 billion MHFS and $18.233 billion of the $18.683 billion MSR are reported at fair value. Overall, this suggests that Wells Fargo has exercised considerable discretion in deciding what financial assets to report at fair value.

Wells Fargo also provides a breakup of the fair values based on the types of inputs used in determining their values: level 1 (based on quoted prices for the exact security being valued); level 2 (based on quoted prices for similar securities or from inactive markets); and level 3 (based on unobservable inputs using the company's assumptions). Such information provides an assessment of the reliability of Wells Fargo's fair value measurements. Of the total $110.735 billion of assets recorded at fair value, $34.928 billion (32%) use level 1, $53.239 billion (48%) use level 2, and $22.568 billion (20%) use level 3 inputs. The lion's share of the level 3 inputs relate to the mortgage servicing rights (MSR), which are valued using only level 3 inputs. Because level 3 inputs are unreliable, the next table provides details of changes in their fair values, including how much of this change is recorded in net income. For mortgage servicing rights, the fair value increased by $632 million (from $17,591 million to $18,223 million). This increase arises because of net purchases of $1,583 million and a $951 million loss in value that was included in net income. Further information reveals that Wells Fargo recorded an unrealized gain of $1,341 million on these securities that was included in net income.

Finally, Wells Fargo reveals that it recorded a net gain of $445 million in net income for all financial assets for which it exercised the fair value option–a gain of $477 million on mortgages held for sale (MHFS) and a $32 million loss for other interests–during the nine months ended September 2007.

Analysis Implications

Reliability of Fair Value Measurements

An important analysis task is evaluating the reliability of fair value measurements and their effect on the financial statements. We note that only 32% of Wells Fargo's fair value measures use level 1 inputs, while 20% use level 3 inputs. Additionally, we see that most of the level 1 inputs pertain to its portfolio of investment securities (for which Wells Fargo chose not to elect the fair value option). Once investment securities are excluded, less than 2% of Wells Fargo's fair value measures use level 1 inputs, and a highly significant 40% use level 3 inputs. Such a significant use of level 3 inputs casts doubts about the reliability of Wells Fargo's fair value estimates and is clearly cause for caution.

The lion's share of the level 3 inputs pertain to mortgage servicing rights (MSR). We also note that a $951 million loss pertaining to MSR was included in net income during the nine months ending September 2007. Further information (from Note 15 in Wells Fargo's 10Q, not reported in the exhibit) suggests that this loss comprises of two components: a $1,341 million unrealized gain arising from changes in assumptions used to determine fair value of the MSRs and $2,292 million loss arising from a provision for anticipated losses arising from the mortgage crisis that hit the U.S. economy during this period. Changes in fair values arising from changes in underlying assumptions must be viewed with utmost skepticism. In this case, we cannot rule out the possibility that the

assumptions changes are an attempt on the part of Wells Fargo to soften the unfavorable effects of the mortgage crisis on net income.

Opportunistic Adoption of SFAS 159

SFAS 159 allows considerable discretion to companies in choosing the specific assets or liabilities for which they exercise the fair value option. An analyst needs to verify whether the fair value election has been opportunistic with an aim to window dressing the financial statements. Wells Fargo has chosen to exercise the fair value option for prime residential mortgages held for resale (MHFS) and certain interest related to residential loan sales and securitization. What is the effect of Wells Fargo's fair value choices on its financial statements? The net gain included in net income (for the nine months ending September 2007) because of the fair value election under *SFAS 159* is $445 million. However, an unrealized loss of $226 million on available-for-sale securities was not included in net income because the company chose not to elect the fair value option for investment securities, even though the fair value estimates of investment securities are more reliable, on average, than those for which the fair value option was exercised. This evidence suggests that Wells Fargo was opportunistic in its choice of assets to use the fair value option.

Additionally, a gain of $1,341 million was included in income because of changes in fair value of mortgage servicing rights (MSR) arising from assumption changes, for which Wells Fargo chose to exercise the fair value option under *SFAS 156.* (Note that the loss provision of $2,292 relating to MSR would have been made in the absence of fair value accounting.) As we note earlier, unrealized gains (or losses) arising from assumption changes are highly unreliable and should be analyzed with care.

Overall, the evidence suggests that Wells Fargo has been significantly managing its net income upward for the nine months ended September 2007 through its use of fair value accounting–both through the selective application the fair value option and through changes in measurement assumptions.

APPENDIX 5A INTERNATIONAL ACTIVITIES

CONSOLIDATION OF FOREIGN SUBSIDIARIES

Many non-U.S. subsidiaries conduct business activities in their local currencies. That is, sales are made, assets are purchased, and debts are created and paid in the local currency. Their financial statements, therefore, are reported in the local currency. Before a non-U.S. subsidiary can be consolidated with its U.S. parent, however, the local-currency-denominated financial statements must be converted into U.S. dollars.

Current accounting standards prescribe two translation approaches, the **current rate method** (most commonly used) and the **temporal method.** If the subsidiary is relatively independent, the current rate method is employed. If the subsidiary is closely integrated with the parent, the temporal method is employed. One final note, subsidiaries located in highly inflationary economies (cumulative three-year inflation rates in excess of 100%) are required to employ the temporal method.

There are important implications of the choice of the translation method. If the current rate method is employed, **translation adjustments** are reported in other comprehensive income (OCI) and do not affect current income. If the temporal method is employed, however, these adjustments are reported as **remeasurement** gains and losses in the income statement. The majority of multinational corporations employ the current rate method and, thereby, defer these translation gains and losses for as long as they continue to own the foreign subsidiary.

Translation of financial statements involves four exchange rates:

1. **Historical**–the exchange rate in effect when the transaction originally occurred.
2. **Current**–the exchange rate in effect at the end of the accounting period.
3. **Specific**–the exchange rate in effect when specific transactions occur.
4. **Weighted-average**–the weighted-average exchange rate in effect during the accounting period.

A comparison of the current and temporal methods is illustrated by the table below.

	EXCHANGE RATE USED FOR TRANSLATION	
	Current Rate Method	**Temporal Method**
Account		
Cash and securities	Current	Current
Inventory	Current	Historical
PP&E and intangibles	Current	Historical
Current liabilities	Current	Current
Long-term liabilities	Current	Current
Capital stock	Historical	Historical
Retained earnings	Derived	Derived
Dividends	Specific	Specific
Revenues	Average	Average
Expenses	Average	Average
COGS	Average	Historical
Depreciation/amortization	Average	Historical
Translation adjustment	Other comprehensive income	
Remeasurement gains (losses)		Income statement

Under the current method, all assets and liabilities are translated at the current rate, or spot rate, in effect as of the statement date. Stockholders' equity accounts are translated at historical rates with dividends translated at the specific rate in effect when the dividends are declared. Income statement items that are deemed to have occurred evenly throughout the period are translated at the weighted-average exchange rate, with specific exchange rates for nonrecurring items like gains or losses on the sale of assets. Finally, the cumulative translation adjustment is reported in other comprehensive income and does not affect current profitability. It is, in effect, deferred until the foreign subsidiary is sold.

The temporal method requires *monetary* assets and liabilities (cash, receivables, and short-term and long-term debt) to be translated at the current exchange rate. All other assets and stockholders' equity accounts are translated at the historical exchange rate, with dividends translated at the specific date the dividends are declared. Revenues and expenses occurring evenly throughout the period are translated at the weighted-average

exchange rate, but expenses relating to assets translated at historical exchange rates are reported at those historical exchange rates. For example, depreciation is computed based on the originally capitalized cost of the fixed asset and is, therefore, a function of the exchange rate in effect when the asset was acquired. Likewise, because inventories are translated at the historical rates in effect when acquired, cost of goods sold is computed using those capitalized costs and the cost flow assumption (e.g., LIFO/FIFO) used by the company. Finally, remeasurement gains and losses as a result of the translation process are reflected in current income and, thereby, affect the current profitability of the company.

Accounting for Foreign Currency Translation

We now illustrate the mechanics of foreign currency translation under the current method as it is the most commonly used. BritCo, a wholly owned British subsidiary of DollarCo, incorporates when the exchange rate is £1 = $1.10. No capital stock changes have occurred since incorporation. The trial balance of BritCo at December 31, Year 6, expressed in units is reproduced in Step (5) as follows:

Additional Information for Translation:

1. BritCo's trial balance is adjusted to conform to DollarCo's accounting principles. The pound (£) is the functional currency of BritCo.
2. The Cumulative Foreign Exchange Translation Adjustment account at December 31, Year 5, is $30,000 (credit).
3. The dollar balance of Retained Earnings at December 31, Year 5, is $60,000.
4. Exchange rates are as follows:

January 1, Year 6	£1 = $1.20
December 31, Year 6	£1 = $1.40
Average for Year 6	£1 = $1.30

5. All accounts receivable, payables, and noncurrent liability amounts are denominated in the local currency. BritCo's December 31, Year 6, trial balance is:

	Debit	Credit
Cash	£ 100,000	
Accounts receivable	300,000	
Inventories, at cost	500,000	
Prepaid expenses	25,000	
Property, plant, and equipment (net)	1,000,000	
Long-term note receivable	75,000	
Accounts payable		£ 500,000
Current portion of long-term debt		100,000
Long-term debt		900,000
Capital stock		300,000
Retained earnings, January 1, Year 6		50,000
Sales		5,000,000
Cost of sales	4,000,000	
Depreciation	300,000	
Other expenses	550,000	
Totals	£6,850,000	£6,850,000

6. Sales, purchases, and all operating expenses occur evenly throughout the year. Accordingly, use of the average exchange rate produces results as if each individual

month's revenues and expenses are translated using the rate in effect during each month. In this case, cost of goods sold is also convertible by use of the average rate.

7. Income tax consequences, if any, are ignored in this illustration.

Exhibit 5A.1 reports the translation of the trial balance into both a balance sheet and income statement. The balance sheet highlights the reporting of translation adjustments

Exhibit 5A.1

BRITCO
Translated Balance Sheet and Income Statement
Year Ended December 31, Year 6

	£	Exchange Rate	Translation Code or Explanation*	$US
Balance Sheet				
Cash	100,000	1.4	C	140,000
Accounts receivable	300,000	1.4	C	420,000
Inventories, at cost	500,000	1.4	C	700,000
Prepaid expenses	25,000	1.4	C	35,000
Property, plant, and equipment (net)	1,000,000	1.4	C	1,400,000
Long-term note receivable	75,000	1.4	C	105,000
Total assets	2,000,000			2,800,000
Accounts payable	500,000	1.4	C	700,000
Current portion of long-term debt	100,000	1.4	C	140,000
Long-term debt	900,000	1.4	C	1,260,000
Total liabilities	1,500,000			2,100,000
Capital stock	300,000	1.1	H	330,000
Retained earnings:				
Balance, 1/1/Year 6	50,000		B	60,000
Current year net income	150,000		F	195,000
Balance, 12/31/Year 6	200,000			255,000
Cumulative foreign exchange translation adjustment:				
Balance, 1/1/Year 6			B	30,000
Current year translation adjustment			G	85,000
Balance, 12/31/Year 6				115,000
Total stockholders' equity	500,000			700,000
Total liabilities and equity	2,000,000			2,800,000
Income Statement				
Sales	5,000,000	1.3	A	6,500,000
Cost of sales	(4,000,000)	1.3	A	(5,200,000)
Depreciation	(300,000)	1.3	A	(390,000)
Other expenses	(550,000)	1.3	A	(715,000)
Net income	150,000			195,000

**Translation code or explanation:*

C = Current rate. *B = Balance in U.S. dollars at the beginning of the period.*
H = Historical rate. *F = Per income statement.*
A = Average rate. *G = Amount needed to balance the financial statements.*

as a separate component of shareholders' equity–usually this is simply reported in a more general component titled Accumulated Other Comprehensive Income (Loss). A review of the translated financial statements of BritCo reveals the following:

1. The company converts all income statement items using the average rate of exchange during the year.
2. All assets and liabilities are translated at the current rate of exchange as of the balance sheet date. Capital stock is translated at the historical rate. If all of a foreign entity's assets and liabilities are measured in its functional currency and are translated at the current exchange rate, then the net accounting effect of a change in the exchange rate is the effect on the entity's net assets. This accounting result is compatible with the concept of economic hedging, which is the basis of the net investment view. That is, no gains or losses arise from hedged assets and liabilities, and the dollar equivalent of the unhedged net investment increases or decreases as the functional currency strengthens or weakens.
3. Notice that after the translated net income for Year 6 of $195,000 is added to the retained earnings in the balance sheet, a translation adjustment of $85,000 must be inserted to balance the statement. When this current year translation adjustment (credit) of $85,000 is added to the $30,000 beginning credit balance of the Cumulative Foreign Exchange Translation Adjustment account, the ending balance equals a credit of $115,000. This is the beginning balance of this equity account for January 1, Year 7.

Analysis of Translation Gain or Loss

Use of the current rate translation yields a balancing figure of $85,000 in the translated balance sheet. This translation gain of $85,000 for BritCo is added to the Cumulative Foreign Exchange Translation Adjustment account in equity. Exchange rate changes do not affect accounts translated at historical rates because such accounts are assigned the dollar amount prevailing at their origination. Accordingly, exchange gains and losses arise from translation of assets and liabilities at the current rate. Because companies translate equity accounts at historical rates, it is the remaining net assets translated at current rates that are exposed to risk of changes in exchange rates. If the dollar strengthens against the foreign currency, the dollar value of foreign net assets declines and yields exchange losses. If the dollar weakens against the foreign currency, the dollar value of foreign net assets increases and yields exchange gains–this is the case with BritCo in Year 6.

The $85,000 translation gain for BritCo, that we computed indirectly, is also computable directly. We start with the beginning net asset position of £350,000 (capital stock of £300,000 + retained earnings of £50,000). Then we multiply the beginning balance of net assets by the change in exchange rate between the beginning and end of the year–in our illustration, this is a strengthening of $0.20 ($1.40 − $1.20) per pound. Because net assets increase in Year 6, the entire beginning balance is exposed to the change in exchange rate for the year, yielding a gain of $70,000 for this part of net assets (computed as £350,000 × $0.20). The second part involves the *change* in net assets during the year. Here we multiply the change by the difference between the year-end rate ($1.40) and the rate prevailing at the date or dates when change(s) occur. We know in the BritCo example that the change occurs due to income earned. Revenue and expense items are translated at the average exchange rate ($1.30). Therefore, we

multiply the increase in net assets by the difference between the year-end rate and the average rate ($1.40 − $1.30) or $0.10. We can directly compute the translation gain as follows:

Translation gain on beginning net assets (£350,000 × [$1.40 − $1.20])	$70,000
Translation gain on increase in net assets for Year 6 (£150,000 × [$1.40 − $1.30])	15,000
Total translation gain	$85,000

When the cause of a change in net assets for the year is due to reasons other than those related to operations, the company needs to identify the reasons along with the rate of exchange for translation. These adjustments enter the computation of translation gain or loss consistent with the above procedures.

Accounting for Foreign Investment by Parent Company

When the parent company accounts for the investment in a foreign subsidiary by using the equity method, the parent records its proportionate share of the translation adjustment. In our illustration, DollarCo makes the following entries in Year 6 (in $US):

Investment in BritCo	195,000	
Equity in Earnings of Subsidiary		195,000
To record equity in BritCo's earnings (£150,000 × 1.3).		
Investment in BritCo	85,000	
Translation Adjustment		85,000
To record current year translation adjustment.		

If DollarCo sells its investment in BritCo on January 1, Year 7, then DollarCo: (1) records a gain or loss on the difference between the proceeds of the sale and the reported (book) value of the investment and (2) transfers the Cumulative Foreign Exchange Translation Adjustment account, with a credit balance of $115,000, to income.

ANALYSIS IMPLICATIONS OF FOREIGN CURRENCY TRANSLATION

Accounting for foreign currency translation is controversial, partly due to the difficulty and complexity of translation. Our analysis requires an understanding of both the economic underpinnings and the accounting mechanics to evaluate and predict effects of currency rate changes on a company's financial position.

The temporal method of translation is most faithful to and consistent with the historical cost accounting model. Under this method, nonmonetary items like property, plant, equipment, and inventories are stated at translated dollar amounts at date of acquisition. Similarly, companies translate depreciation and cost of goods sold on the basis of these historical-dollar costs. Because fluctuations in exchange rates do not affect the reported amounts of these nonmonetary assets, exposure to balance sheet translation gains and losses is measured by the excess (or deficit) of monetary assets over monetary liabilities (which are translated at current rates). For example, under the temporal

method, if a foreign subsidiary has an excess of monetary liabilities over monetary assets *(high debt position)*, then the following relations prevail:

Dollar Versus Local Currency	Balance Sheet Translation Effect
Dollar strengthens	Gain
Dollar weakens	Loss

If a foreign subsidiary has an excess of monetary assets over monetary liabilities *(high equity position)*, then the following relations ensue:

Dollar Versus Local Currency	Balance Sheet Translation Effect
Dollar strengthens	Loss
Dollar weakens	Gain

Companies generally do not like translation gains and losses subjected to variation in economic environments as with the temporal method. They dislike even more the recording of these unpredictable gains and losses in net income, yielding earnings volatility. Admittedly, company criticism is not as strong when the translation process results in gains rather than losses.

Current practice does *not* follow the temporal method *except* in two cases:

1. When a foreign entity is merely an extension of the parent.
2. When hyperinflation causes translation of nonmonetary assets to unrealistically low reported values because of using the current rate. The foreign currency thus loses its usefulness and a more stable currency is used.

Current practice generally uses the current method. This approach selectively introduces current value accounting. It also allows gains and losses to bypass the net income statement (reported, instead, in comprehensive income). This removes from current operations certain risk effects of international activities and the risks of changes in exchange rates. Yet, while insulating income from balance sheet translation gains and losses, the current rate method introduces a different translation exposure. Namely, while translation exposure for the temporal method is measured by the difference between monetary assets and monetary liabilities, the translation exposure for the functional currency approach is measured by the *size of the net investment.* This is because all balance sheet items, except equity, are translated at the current rate. We illustrate this as follows.

SwissCo, a subsidiary of AmerCo, started operations on January 1, Year 1, with a balance sheet in euros (€) as follows:

	€		€
Assets		**Liabilities and Equity**	
Cash	100	Accounts payable	90
Receivables	120	Capital stock	360
Inventory	90		
Fixed assets	140		
Total assets	450	Total liabilities and equity	450

The income statement for the year ended December 31, Year 1, is:

	€
Sales	3,000
Cost of sales (including depreciation of SF 20)	(1,600)
Other expenses	(800)
Net income	600

The December 31, Year 1, balance sheet is:

	€		€
Assets		**Liabilities and Equity**	
Cash	420	Accounts payable	180
Receivables	330	Capital stock	360
Inventory	270	Retained earnings	600
Fixed assets (net)	120		
Total assets	1,140	Total liabilities and equity	1,140

The following exchange rates are applicable:

January 1, Year 1	$1 = €2.0
December 31, Year 1	$1 = €3.0
Year 1 average	$1 = €2.5

The beginning and ending balance sheets are translated into dollars as follows:

	JANUARY 1, YEAR 1			DECEMBER 31, YEAR 1		
	€	Conversion	$	€	Conversion	$
Assets						
Cash	100	÷2.0	50	420	÷3.0	140
Receivables	120	÷2.0	60	330	÷3.0	110
Inventory	90	÷2.0	45	270	÷3.0	90
Fixed assets (net)	140	÷2.0	70	120	÷3.0	40
Total assets	450		225	1,140		380
Liabilities and Equity						
Accounts payable	90	÷2.0	45	180	÷3.0	60
Capital stock	360	÷2.0	180	360	÷2.0	180
Retained earnings	—		—	600	*	240
Translation adjustment						(100)
Total liabilities and equity	450		225	1,140		380

**Per income statement—since each individual income statement item is translated at the average rate, net income in dollars is €600 ÷ 2.5 = $240.*

The translation adjustment account (a component of equity as reported in comprehensive income) is independently calculated as:

	€	$
Total equity (equals net assets):		
In € at December 31, Year 1	€960	
Converted into dollars at year-end rate (÷3.0)		$ 320
Less:		
Capital stock at December 31, Year 1, per converted balance sheet (in dollars)		(180)
Retained earnings balance at December 31, Year 1, per converted balance sheet (in dollars)		(240)
Translation adjustment—loss		$(100)

We can derive several analysis insights from this illustration. First, the translation adjustment (loss of $100 in Year 1) is determined from the net investment in SwissCo at end of Year 1 (€960) multiplied by the change in exchange rates. The exchange rate declines from €2.0 per dollar for capital stock, and from €2.5 per dollar for retained earnings, to the year-end exchange rate of €3.0 per dollar. Consequently, the € investment expressed in dollars suffers a loss of $100. This is intuitive–when an investment is expressed in a foreign currency and that currency weakens in relation to the dollar, then the investment value (in dollars) declines. The reverse occurs if that currency strengthens.

Second, under the current rate method, currency translation affects equity (but not income). As such, this approach affects, among other ratios, the debt-to-equity ratio (potentially endangering debt covenants) and book value per share for the translated balance sheet (but not for the foreign currency balance sheet). Because equity capital represents the measure of exposure to balance sheet translation gain or loss under this approach, that exposure is potentially more substantial than under the temporal method, especially with a subsidiary financed with low debt and high equity. Our analysis can estimate the translation adjustment impact by multiplying year-end equity by the estimated change in the period-to-period rate of exchange.

Third, we can examine the effect of a change in exchange rates on the translation of the income statement. If we assume in Year 2 that SwissCo reports the same income but the € further *weakens* to €3.5 (average for year) per dollar, then the translated income totals €600 ÷ 3.5 = $171, or a decline of $69 from the Year 1 level of $240. This loss would be reflected in the translated income statement. In contrast, if the € *strengthens* to €2.0 per dollar (average for year), the translated income totals €600 ÷ 2.0 = $300, or a gain of $60 from the Year 1 level of $240. This gain is reflected in net income and recognizes that income earned in € is worth more dollars. Under the current rate method, translated income varies directly with changes in exchange rates. This makes our estimation of the income statement translation effect easier.

Our analysis must be aware that net income also includes the results of completed foreign exchange transactions. Further, any gain or loss on translation of a current payable by the subsidiary to the parent (which is not of a long-term nature) flows through net income.

A substantial drop in the dollar relative to many important currencies has the effect of increasing the reported net income of consolidated foreign subsidiaries. It also often increases equity, in certain cases by substantial amounts. This effect lowers measures

such as return on equity. Should the dollar recover its value, the results are the opposite and yield lower reported net income.

While current practice yields smaller fluctuations in net income relative to the fluctuations in exchange rates, it yields substantial changes in equity because of changes in the cumulative translation adjustment (CTA) account. For companies with a large equity base, these changes are arguably insignificant. But for companies with a small equity base these changes, which further reduce equity, yield potentially serious effects on debt-to-equity and other ratios. This can put a company at risk of violating its debt covenants or other accounting-based restrictions. Exposure to changes in the CTA depends on the degree of exposure in foreign subsidiary net assets to changes in exchange rates. Companies can reduce this exposure by reducing the net assets of their foreign subsidiaries. This can be achieved by withdrawing foreign investment through dividends or by substituting foreign debt for equity. We must recognize that an increasing debit balance in the CTA is often symptomatic of a failure to manage properly the foreign exchange exposure. This can result from investments denominated in persistently weak currencies, among other reasons.

APPENDIX 5B INVESTMENT RETURN ANALYSIS

ADJUSTMENTS TO FINANCIAL STATEMENTS

What adjustments due to investment securities must we make when determining economic income and permanent income? Recall that economic income includes all changes to shareholder wealth. This means all components of investing income (interest, dividends, and realized and unrealized gains and losses) for all classes of investment securities must be included when determining economic income. Because comprehensive income includes unrealized gains and losses only from trading and available-for-sale securities, we must adjust comprehensive income to include unrealized gains and losses from held-to-maturity securities.[1] Unrealized gains and losses on held-to-maturity securities are disclosed in the notes.

Determining permanent income is more involved and is computed as follows:

$$\text{Permanent investment income} = \text{Expected ROI} \times (\text{Beginning fair value of investment} + \text{Ending fair value of investment})/2$$

The expected return on investment (ROI) for the portfolio of securities held by the company is computed as follows: Expected ROI = Required ROI + Historical deviation of the Realized ROI less the Required ROI. Required ROI is the weighted-average cost of capital for the company's investment portfolio given its risk and asset composition. The historical deviation component reflects the performance of the company's investments. It is important to consider a sufficiently long history to purge transitory effects from this component (we discuss the computation of realized ROI in the next section).

[1] Some argue that including unrealized gains and losses from held-to-maturity securities in income is incorrect because the company does not intend to sell these securities till maturity and, thus, fluctuations in market values of those securities are of no consequence. This argument is erroneous. It is true that *future realizations* from a security that is not expected to be sold will remain constant. However, the *present value* of these future realizations will change with changes in expected interest rates, which is what is reflected in the securities' current market prices.

Next, what adjustments should be made to the balance sheet? Trading and available-for-sale securities are presently reported at fair value, while held-to-maturity securities are reported at cost. For analysis purposes, we want all investment securities (including held-to-maturity) reported at fair value in the balance sheet. Accordingly, we want to adjust held-to-maturity securities to fair value. Remember that offsetting adjustments must be made to equity to reflect any adjustments to the fair value.

EVALUATING INVESTMENT PERFORMANCE

Evaluating investment performance is an important analysis task. This task is especially important for companies where investment income constitutes a large portion of their income. For example, investment performance is one of the most important factors for success with banks, insurance companies, and other financial institutions. The performance of investment securities is evaluated using a return on investment (ROI) metric, which we loosely define as the realized investment income for the period divided by the average investment base:

$$\text{Realized ROI} = \frac{\text{Investment income}}{(\text{Beginning fair value of investment} + \text{Ending fair value of investment})/2}$$

The investment income, or numerator, is made up of three parts: Interest (and dividend) income + Realized gains and losses + Unrealized gains and losses. Note that ROI for investment securities is based on fair values, both for determining investment income (by including unrealized gains and losses) and for measuring average investment base (by using fair values of investments). This means evaluation of investment performance is not limited to analysis of only realized amounts.

We compute Coca-Cola's return on investment for Year 9 in Exhibit 5B.1. First, we determine Coca-Cola's investment income as follows: interest and dividend income as

Exhibit 5B.1 ***Evaluating Investment Performance—Coca-Cola***

	Held to Maturity	Available for Sale	Total
Investment Income (Year 9)			
Interest and dividend income	$ 219	$ —	$ 219
Realized gains and losses	—	—	—
Unrealized gains and losses	—	(70)	(70)
Total before tax	219	(70)	149
Tax adjustment (33%)	(72)	23	(49)
Total after tax	$ 147	$ (47)	$ 100
Average Investment Base (Year 8)			
Year 8 Fair value	$1,591	$526	$2,117
Year 9 Fair value	1,431	422	1,853
Average	$1,511	$474	$1,985
Return on Investment (ROI)			
Before tax	14.5%	−14.8%	7.5%
After tax	9.7%	−9.9%	5.0%

reported in the income statement *plus* realized gains and losses (reported in its notes to be immaterial) *plus* unrealized gains and losses as reported in comprehensive income.[2] We also adjust for taxes using the company's effective tax rate of 33%. Next, the average investment base is computed from the beginning and ending fair values. Finally, Coca-Cola's ROI is computed. For its total securities it is 7.5% before tax and 5% after tax. The total ROI pretax return of 7.5% is made up of a pretax return of 14.5% (negative 14.8%) on its held-to-maturity (available-for-sale) securities. The loss on its available-for-sale securities is mainly due to its equity investments in bottling companies. Also, its pretax return of 14.5% on held-to-maturity securities appears especially high, particularly when most of these securities are of extremely short maturity. This might be explained by one or both of the following: (1) interest income as reported on the income statement may include interest income from other sources, and/or (2) the fair value of held-to-maturity securities on the current balance sheet may be much lower than the daily balance. The second possibility is more likely given seasonality in Coca-Cola's business, especially because securities in this class are predominantly short term.

How do we evaluate Coca-Cola's, or any company's, investment performance? One approach is to compare the realized ROI with the required ROI (weighted-average cost of capital) based on the composition and risk of the asset classes in the portfolio. However, this approach attributes transitory market movements to investment performance. Another approach is to compare the realized ROI against a benchmark ROI–where the benchmark ROI is the realized ROI for a portfolio with a similar risk profile for the period under analysis.

GUIDANCE ANSWERS TO ANALYSIS VIEWPOINTS

COMPETITOR

Toys "R" Us is concerned about the threat of the Marvel/Toy Biz agreement for its future sales in toys and games. Financial statement disclosure of this agreement is useful not only for those interested in Marvel and Toy Biz, but also (and in some cases markedly more so) to competitors like Toys "R" Us. Because of this agreement, Marvel character-based toys are one of the leading boys' action figure lines, and Toy Biz recently introduced Marvel Interactive CD-ROM comics. Toy Biz is now arguably one of the fastest-growing toys and games companies and lists its securities on the New York Stock Exchange. The motivation for Marvel's acquisition of 46% of the equity securities in Toy Biz is to retain some influence on the business activities of Toy Biz–especially as it relates to Marvel-related products. It is also an opportunity for Marvel to expand its operations using the existing expertise of Toy Biz and, thus, to reduce its investment risk.

ANALYST

It appears the ED would require consolidation of many of the bottlers in category (2)–those in which Coca-Cola has noncontrolling ownership. It is difficult to precisely gauge the impact of consolidation on its solvency ratios. Still, it is likely that consolidation would yield solvency ratios that reflect less favorably on Coca-Cola.

LAWYER

Your client needs to be informed about a distinction between "economic substance" and "legal responsibility." Consolidated financial statements are meant to recognize the entire business entity under a centralized control.

[2] Note that comprehensive income does not include unrealized gains and losses from held-to-maturity securities. Because Coca-Cola does not report any unrealized gains and losses on its held-to-maturity securities, we use the unrealized gains and losses reported in comprehensive income. If a company reports unrealized gains and losses from held-to-maturity securities, we need to include those when determining the return on investment. The unrealized gains and losses from held-to-maturity securities can be obtained by determining the difference between the ending and beginning unrealized gains and losses from held-to-maturity securities disclosed in the notes.

Economic substance suggests that all subsidiaries under a parent's control are its responsibility and should be reported as such–yielding consolidated statements. Legal responsibility is *not* the same. Shareholders like your client (and NY Research Labs) are *not* responsible for any losses incurred by lawsuits against Boston Chemicals Corporation. Shareholders' risks generally extend only to their investment in a corporation's stock. In sum, NY Research Labs is not responsible for lawsuits of Boston Chemicals because of consolidation. But the amount of NY Research Labs' investment in common stock of Boston Chemicals is subject to the risk presented from these lawsuits.

INVESTMENT BANKER

There are two important aspects to this case. First, you require complete and accurate disclosure of your client's stock offering according to accepted practices. This includes your analysis of LA Delivery's financial statements to ensure adherence to accepted accounting principles. On this dimension, you are entirely assured. Second, and not unrelated to the first point, you require that your client is not misrepresenting its financial position. This is important for your reputation and future business opportunities as an investment banker. Here is the dilemma. LA Delivery properly reports its financial statements using pooling accounting for its acquisition of Riverside Trucking. Yet you know from your analysis that pooling does not entirely reflect the economic substance of this transaction. More specifically, you expect its common stock will fetch a price considerably higher than what its fundamentals suggest. To accept this engagement you would like to report pro forma statements for LA Delivery assuming *purchase accounting* for Riverside Trucking. In this way you are comfortable in fairly representing the economic substance of your client's financial position. If LA Delivery refuses to disclose any additional information than that required under acceptable practices, you might be forced to decline this engagement.

QUESTIONS

5–1. Describe accounting procedures governing valuation and presentation of noncurrent investments. Distinguish between accounting for investments in equity securities of an investee when holding (*a*) less than 20% of voting shares outstanding and (*b*) 20% or more of voting shares outstanding.

5–2. *a.* Evaluate the accounting for investments when holding between 20 and 50% of equity securities of an investee from the view of an analyst of financial statements.
b. When are losses in noncurrent security investments recognized? Evaluate the accounting governing recognition of these losses.

5–3. Describe weaknesses and inconsistencies in accounting for noncurrent security investments that are relevant for analysis purposes.

5–4. Many investors view noninfluential stock investments (stock purchased to earn return versus stock purchased to gain influence over another entity for strategic purposes) as a signal to sell a stock. Why might a noninfluential stock investment be perceived as a negative signal about the prospects of a company?

5–5. Distinguish between hedging and speculative activities with regard to derivatives.

5–6. Describe a futures contract.

5–7. Describe a swap contract. How are swaps typically used by companies?

5–8. Describe an option contract. When is an option likely to be exercised?

5–9. What is a hedge transaction?

5–10. When does a derivative security qualify for hedge accounting under *SFAS 133?*

5–11. Give an example of a cash flow hedge and an example of a fair value hedge.

5–12. Describe the accounting treatment for both fair value hedges and cash flow hedges.

5–13. Describe the accounting treatment for speculative derivatives.

5–14. Evaluate the following statement from an analysis viewpoint: "A parent company is not responsible for the liabilities of its subsidiaries nor does it own the assets of its subsidiaries. As such, consolidated financial statements distort legal realities."

5–15. Describe important information potentially disclosed in the individual parent and subsidiary companies' financial statements that is not found in their consolidated statements.

(CFA Adapted)

5–16. Identify and explain some of the important limitations of consolidated financial statements.

5–17. The following note appears in the financial statements of Best Company for the period ending December 31, Year 1:

> Event subsequent to December 31, Year 1: In January Year 2, Best Company acquired Good Products, Inc., and its affiliates by the issuance of 48,063 shares of common stock. Net assets of the combined companies amount to $1,016,198, and net income for Year 1 is $150,000. To the extent the acquired companies earn in excess of $1,000,000 over the next five years, Best Company is required to issue additional shares not to exceed 151,500, and limited to a market value of $2,000,000.

a. Explain whether this disclosure is necessary and adequate.
b. If Good Products, Inc., is acquired in December Year 1, at what price does Best Company record this acquisition? (*Note:* Best Company's shares traded at $22 on the acquisition date.)
c. Explain the contingency for additional consideration.
d. If the contingency materializes to the maximum limit, how does Best Company record this investment?

5–18. Describe how you determine the valuation of assets acquired in a purchase when:
a. Assets are acquired by incurring liabilities.
b. Assets are acquired in exchange of common stock.

5–19. From an analysis point of view, is pooling accounting or purchase accounting for a business combination preferable? Explain with reference to the balance sheet and income statement.

5–20. Assume a company appropriately determines the total cost of a purchased entity. Explain how the company allocates this total cost to the following assets.
a. Goodwill.
b. Negative goodwill (bargain purchase).
c. Marketable securities.
d. Receivables.
e. Finished goods.
f. Work in process.
g. Raw materials.
h. Plant and equipment.
i. Land and mineral reserves.
j. Payables.
k. Goodwill recorded by acquired company.

5–21. Describe the analysis procedure available to adjust an income statement using pooling accounting so as to be comparable with an income statement using purchase accounting.

5–22. When an acquisition accounted for as a purchase is effected for stock or other equity securities, discuss what our analysis should be alert to.

5–23. Resources, Inc., is engaged in an aggressive program of acquiring competing companies through the exchange of common stock.
a. Explain how an acquisition program might contribute to the rate of growth in earnings per share of Resources, Inc.
b. Explain how the income statements of prior years might be adjusted to reflect the potential future earnings trend of the combined companies.

(CFA Adapted)

5–24. When a balance sheet reports a substantial dollar amount for goodwill, discuss what we should be concerned with in our analysis.

5–25. Indicate factors that can alter estimates for the benefit periods of intangible assets.

5–26[A]. Identify and discuss the major provisions of accounting for foreign currency translation.

5–27[A]. Discuss the major objectives of current accounting practice involving foreign currency translation.

5–28[A]. Identify and discuss at least three implications for analysis of financial statements that result from the accounting for foreign currency translation.

EXERCISES

EXERCISE 5–1
Motivation for Classification of Investment Securities

An important element in accounting for investment securities concerns the distinction between its noncurrent and current classification.

Required:

a. Why do most companies maintain an investment portfolio consisting of both current and noncurrent securities?
b. What factors should an analyst consider when evaluating whether investments in marketable equity securities are properly classified as current or noncurrent? How do these factors affect the accounting treatment for unrealized losses?

EXERCISE 5–2
Analysis of Microsoft Investments

Refer to Exhibit 5.5 to answer the following questions about **Microsoft Corporation** investments. **Microsoft Corporation**

a. Microsoft reports unrealized gains and unrealized losses on securities. Accordingly, the investment cost basis is marked to market. What type of account is increased or decreased as a result (asset account, liability account, other gain account, other loss account, or equity account)?
b. If Microsoft investments were trading securities, what type of account would have been increased or decreased when the investment account is marked to market?
c. Given that Microsoft designates its securities portfolio as available-for-sale, what possibilities exist for the company to manage earnings using its investments?

EXERCISE 5–3
Investment Securities

A company can have passive interest (noninfluencial) investments, significant influential investments, or controlling interests. Passive interest investments can be trading, available-for-sale, or held-to-maturity securities.

Required:

a. Describe the valuation basis at which each of these types of investments is reported on the balance sheet.
b. If the investment type is reported at fair value, indicate where any value fluctuation is reported (net income or comprehensive income).
c. What is the rationale for reporting held-to-maturity securities at cost? Does this rationale make economic sense?

(CFA Adapted)

EXERCISE 5–4
Interpreting Accounting for Business Combinations

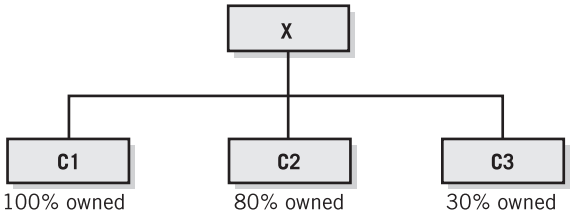
Spellman Company acquires 90% of Moore Company in a business combination. The total consideration is agreed upon, but the exact nature of Spellman's payment is not yet fully specified. This business combination is accounted for as a purchase. It is expected that at the date of the business combination, the fair value will exceed the book value of Moore's assets minus liabilities. Spellman desires to prepare consolidated financial statements that include the financial statements of Moore.

Required:

a. Explain how the method of accounting for a business combination affects whether goodwill is reported.
b. If goodwill is recorded, explain how to determine the amount of goodwill.
c. From a conceptual standpoint, explain why consolidated financial statements should be prepared.
d. From a conceptual standpoint, identify the first necessary condition before consolidated financial statements are prepared.

EXERCISE 5–5
Analyzing and Interpreting Intercorporate Investments

The diagram below portrays Company X (the parent or investor company), its two subsidiaries C1 and C2, and its "50 percent or less owned" affiliate C3. Each of the companies has only one type of stock outstanding, and there are no other significant shareholders in either C2 or C3. All four companies engage in commercial and industrial activities.



Required:

a. Explain whether or not each of the separate companies maintains distinct accounting records.

b. Identify the type of financial statements each company prepares for financial reporting.

c. Assume you have the ability to enforce your requests of management, describe the type of financial statement information about these companies (separate or consolidated) that you would request.

d. Explain what Company X reports among its assets regarding subsidiary C1.

e. In the consolidated balance sheet, explain how the 20 percent of C2 that is *not* owned by Company X is reported.

f. Identify the transaction that is necessary before C3 is included line by line in the consolidated financial statements.

g. If combined statements are reported for C1 and C2, discuss the need for any elimination entries.

EXERCISE 5–6[A]
Interpreting the Effects of Functional Currency

Bethel Company has a foreign wholly owned subsidiary, Home Brite Company. The parent uses the current rate method to compute the cumulative translation adjustment.

Required:

Explain how the use of the current rate method affects each of the following:

a. Reported sales and income of Home Brite.

b. Computation of translation gains and losses.

c. Reporting of translation gains and losses.

(CFA Adapted)

PROBLEMS

PROBLEM 5–1
Investment Disclosures

Munger.Com began operations on January 1, 2006. The company reports the following information about its investments at December 31, 2006:

Current assets ***($ in thousands)***	**Cost**	**Market**
Investments in marketable debt securities:		
Able Corp. bonds (held-to-maturity)	$ 330	$ 290
Bryan Co. bonds (available-for-sale)	800	825
Caltran, Inc. bonds (trading)	550	515
Investments in marketable equity securities:		
Available-for-sale	1,110	1,600
Trading	1,500	950

Required:

CHECK
(*a*) Total securities, $4,220

a. Show how each of these investments are reported on the Munger.Com balance sheet.

b. For assets that are marked to market, indicate where the unrealized value fluctuation is reported (in net income and/or in comprehensive income).

PROBLEM 5–2
Analyzing and Interpreting Marketable Equity Securities

Cited here are four unrelated cases involving marketable equity securities:

1. A noncurrent portfolio of available-for-sale equity securities with an aggregate market value in excess of cost; includes one particular security whose market value has declined to less than one-half of the original cost.
2. The balance sheet of a company does not classify assets and liabilities as current and noncurrent. The portfolio of available-for-sale equity securities includes securities normally considered current that have a net cost in excess of market value of $2,000. The remainder of the portfolio has a net market value in excess of cost of $5,000.
3. An available-for-sale marketable equity security, whose market value is currently less than cost, is classified as noncurrent but is to be reclassified as current.
4. A company's noncurrent portfolio of marketable equity securities consists of the common stock of one company. At the end of the prior year, the market value of the security was 50% of original cost, and this effect was properly reflected in a Valuation Adjustment account. However, at the end of the current year, the market value of the security had appreciated to twice the original cost. The security is still considered noncurrent at year-end.

Required:

For each of the cases, describe how the information provided affects the classification, carrying value, and income reported for that company's investment securities.

PROBLEM 5–3
Analyzing Investment Securities Transactions

The following data are taken from the December 31 annual report of Bailey Company:

($ in thousands)	2004	2005	2006
Sales	$50,000	$60,000	$70,000
Net income	2,000	2,200	2,500
Dividends paid	1,000	1,200	1,500

Bailey had 1,000,000 common shares outstanding during this entire period and there is no public market for Bailey Company shares. Also during this period, Simpson Corp. bought Bailey shares for cash, as follows:

January 1, 2004	10,000 shares at $10 per share
January 1, 2005	290,000 shares at $11 per share, increasing ownership to 300,000 shares
January 1, 2006	700,000 shares at $15 per share, resulting in 100% ownership of Bailey Company

Simpson assumed significant influence over Bailey's management in 2005. Ignore income tax effects and the opportunity costs of making investments in Bailey for the requirements listed here.

Required:

CHECK
(*b*) Book value, 12/31/2005, $3,600,000

a. Compute the effects of these investments on Simpson's reported sales, net income, and cash flows for each of the years 2004 and 2005.

b. Compute the carrying (book) value of Simpson's investment in Bailey as of December 31, 2004, and December 31, 2005.

c. Identify the U.S. GAAP-based accounting method Simpson would use to account for its intercorporate investment in Bailey for 2006. Give two reasons this accounting method must/should be used.

(CFA Adapted)

PROBLEM 5–4
Intercorporate Investments under the Equity Method

Burry Corporation acquires 80% of Bowman Company for $40 million on January 1, Year 6. At the time of acquisition, Bowman has total net assets with a fair value of $25 million. For the years ended December 31, Year 6, and December 31, Year 7, Bowman reports net income (loss) and pays dividends as shown here:

	Net Income (loss)	Dividends Paid		Net Income (loss)	Dividends Paid
Year 6	$2,000,000	$1,000,000	Year 7	$(600,000)	$800,000

The excess of the acquisition price over the fair value of net assets acquired is assigned to goodwill. Since goodwill has an indefinite life, it is not amortized.

Required:

a. Compute the value of Burry's investment in Bowman Co. as of December 31, Year 7, under the equity method.

CHECK
Investment at Dec. 31, Year 7, $39,680,000

b. Discuss the strengths and weaknesses of the income statement and balance sheet in reflecting the economic substance of this transaction and subsequent business activities using the equity method.

(CFA Adapted)

PROBLEM 5–5
Analyzing Financial Statement Effects of Intercorporate Investments

The following data are from the annual report of Francisco Company, a specialized packaging manufacturer:

	Year 6	Year 7	Year 8
Sales	$25,000	$30,000	$35,000
Net income	2,000	2,200	2,500
Dividends paid	1,000	1,200	1,500
Book value per share (year-end)	11	12	13

Note: Francisco had 1,000 common shares outstanding during the entire period. There is no public market for Francisco shares.

Potter Company, a manufacturer of glassware, made the following acquisitions of Francisco common shares:

January 1, Year 6	10 shares at $10 per share
January 1, Year 7	290 shares at $11 per share, increasing ownership to 300 shares
January 1, Year 8	700 shares at $15 per share, yielding 100% ownership of Francisco

Ignore income tax effects and the effect of lost income on funds used to make these investments.

Required:

a. Compute the effects of these investments on Potter Company's reported sales, net income, and cash flows for each of the Years 6 and 7.

CHECK
(*b*) $3,600 at Dec. 31, Year 7

b. Calculate the carrying value of Potter Company's investment in Francisco as of December 31, Year 6, and December 31, Year 7.

c. Discuss how Potter Company accounts for its investment in Francisco during Year 8. Describe any additional information necessary to calculate the impact of this acquisition on Potter Company's financial statements for Year 8.

(CFA Adapted)

PROBLEM 5–6
Interpreting Pro Forma Balance Sheets under Purchase and Pooling

Your supervisor asks you to analyze the potential purchase of Drew Company by your firm, Pierson, Inc. You are provided the following information (in millions):

	Pierson, Inc., Historical Cost-Based	DREW COMPANY Historical Cost-Based	DREW COMPANY Fair Value
Current assets	$ 70	$ 60	$ 65
Land	60	10	10
Buildings, net	80	40	50
Equipment, net	90	20	40
Total assets	$300	$130	$165
Current liabilities	$120	$ 20	$ 20
Shareholders' equity	180	110	—
Total liabilities and equity	$300	$130	

CHECK
(*a*) Total assets, $500

Required:

a. Prepare a pro forma combined balance sheet using purchase accounting. Note that Pierson pays $180 million in cash for Drew where the cash is obtained by issuing long-term debt.

b. Discuss how differences between pooling and purchase accounting for acquisitions affect future reported earnings of the Pierson/Drew business combination.

(CFA Adapted)

PROBLEM 5–7
Analyzing Intercorporate and International Investments

Refer to the financial statements of **Campbell Soup Company** in Appendix A at the end of the book.

Campbell Soup Company

Required:

a. As of July 28, Year 11, Campbell owned 33% of Arnotts Limited. Explain where Campbell reports the amounts representing this investment.

b. Note 18 contains disclosures regarding the market value of the company's investment in Arnotts Limited. Explain whether this market value is reflected in Campbell's financial statements beyond the disclosures referred to.

c. In July of Year 11, Campbell acquired the remaining shares of Campbell Canada. This is in addition to one other acquisition during Year 11. Describe what the difference between the purchase price paid for these acquisitions and the fair market value of the acquired net assets implies for analysis purposes.

CHECK
(*d*) Cr. Cash for 180.1

d. Prepare a composite journal entry recording the total Year 11 acquisitions.

e. Explain the likely causes of changes in the cumulative translation adjustment accounts for (1) Europe and (2) Australia.

CASES

CASE 5–1
Accounting Entries for Consolidation of Intercorporate Investments

Axel Corporation acquires 100% of the stock of Wheal Company on December 31, Year 4. The following information pertains to Wheal Company on the date of acquisition:

	Book Value	Fair Value
Cash	$ 40,000	$ 40,000
Accounts receivable	60,000	55,000
Inventory	50,000	75,000
Property, plant, and equipment (net)	100,000	200,000
Secret formula (patent)	—	30,000
Total assets	$250,000	$400,000
Accounts payable	$ 30,000	$ 30,000
Accrued employee pensions	20,000	22,000
Long-term debt	40,000	38,000
Capital stock	100,000	—
Other contributed capital	25,000	—
Retained earnings	35,000	—
Total liabilities and equity	$250,000	$ 90,000

Axel Corporation issues $110,000 par value ($350,000 market value on December 31, Year 4) of its own stock to the shareholders of Wheal Company to consummate the transaction, and Wheal Company becomes a wholly owned, consolidated subsidiary of Axel Corporation.

Required:

a. Prepare journal entries for Axel Corp. to record the acquisition of Wheal Company stock assuming (1) pooling accounting and (2) purchase accounting.

b. Prepare the worksheet entries for Axel Corp. to eliminate the investment in Wheal Company stock in preparation for a consolidated balance sheet at December 31, Year 4 assuming (1) pooling accounting and (2) purchase accounting.

c. Calculate consolidated retained earnings at December 31, Year 4 (Axel's retained earnings at this date are $150,000), assuming:
(1) Axel Corp. uses the pooling method for this business combination.
(2) Axel Corp. uses the purchase method for acquisition of Wheal Company.

CHECK
(*b*) Cr. Investment in Wheal for $110,000 in (1), and $350,000 total in (2)

CASE 5–2
Analyzing TYCO: Aggressive or Out of Line?

TYCO International

TYCO International was featured in a November 1999, article in *BusinessWeek* for its accounting methods related to acquisitions. In mid-October 1999, Tyco's market value declined by 23% amid allegations by an analyst that the company was inflating its growth picture using accounting gimmicks along with rumors that Tyco's auditors would resign. Tyco has spent $30 billion on deals in the past three years alone–$23 billion paid with stock. It has focused on mundane technologies–including security systems, electronic connectors, industrial valves, and health care products. Tyco reported that its fiscal 1999 net income before special charges more than doubled to $2.6 billion, and sales jumped 83%, to $22.5 billion. Before the allegations, Tyco's market value was over $80 billion, up from just $1.7 billion in 1992.

Some analysts allege Tyco aggressively managed its earnings using acquisitions to produce eye-popping numbers. Wall Street's short-sellers have long whispered about Tyco's accounting. Tyco is known as a "rollup" company–one that uses its lofty stock price to snap up companies with lower PE multiples–whose acquisitions strategy is now at risk given its stock price decline. Tyco's problems center around aggressive merger-related accounting, including restating

downward the results of acquired companies before the deals close to make its future results look better. Most of Tyco's biggest acquisitions are accounted for using pooling accounting. This means Tyco restates its financials, effectively pretending the acquired company was part of Tyco long before the deal closed. These restatements make it difficult to compare one period to the next. Adding to the confusion, Tyco has taken $4 billion in merger-related charges in recent years, changed the end of its fiscal year from December to September, and moved its headquarters from the United States to Bermuda for a lower tax rate. One analyst claims that Tyco is using huge charges to create "cookie jars" of reserves against future operating expenses.

Indeed, Tyco's earnings look anything but stellar once the massive charges are taken into account. With these charges, Tyco shows huge net losses in both fiscal 1996 and 1997 and an 83 percent drop in net income in the first nine months of fiscal 1999. However, Wall Street convention is to overlook such charges, figuring that pro-forma earnings provides a better picture of "normalized" earnings.

Tyco rejects all allegations. Its CEO says the SEC conducted full legal and accounting reviews of filings for Tyco's three largest deals over the past two years. The CEO also says only 6 of the 120 recent deals involved pooling, although it was applied to some of its biggest deals. Accounting questions aside, Tyco is adept at cutting costs. For example, Tyco has cut annual operating costs by $200 million at U.S. Surgical since its acquisition in 1988. However, former U.S. Surgical execs and competitors say Tyco may have lost some of the innovation needed to ensure its future in an evolving medical supply business. Said one exec, "They had a lot of interesting products in the pipeline, but [Tyco] pulled the plugs on all of that."

Required:

a. Describe how merger-related accounting inhibits a user's ability to use accounting reports to make period-to-period comparisons. Is this true for both the purchase method and the pooling method? Explain.

b. Explain why a high price-to-earnings ratio is crucial to Tyco's acquisitions strategy.

c. How do merger-related charges potentially enable a company to inflate future operating earnings? How can a user of financial statements assess whether this is occurring?

d. Many short-term gains in acquisition come from cutting costs. What potential long-term harm can cost-cutting create?

e. Tyco's controversy is arguably a quality of earnings concern, where Tyco strategically used the discretion in GAAP. Why is the market's reaction to this alleged behavior so severe?

f. Many companies report pro-forma earnings that exclude one-time acquisition costs and, increasingly, goodwill amortization. Critique the use of pro-forma earnings for financial statement analysis.

CASE 5–3
Derivatives–Hedging Strategies, Accounting, and Economic Effects

Newmont Mining

Newmont Mining is the largest gold producer in North America and second largest in the world, with mining interests in the U.S., Mexico, Peru, Uzbekistan, and Indonesia. In 1998, Newmont produced 4.07 million ounces of gold and its proven and probable reserves total 52.6 million ounces.

The price of gold is usually inversely related to the performance of financial assets such as stocks and bonds. Gold mining shares often provide a leveraged exposure to movements in gold price and, thus, are a convenient hedge against downturns in financial markets, especially those precipitated by inflation. However, gold prices have been in a secular downtrend for the past 18 years and especially in the past 3 years–gold prices fell from around $400 an ounce in early 1996 to around $250 an ounce by mid-1998. The prolonged bear market in gold has driven many gold-mining companies out of business. Many other companies have attempted to mitigate their exposure to the decline in gold prices with a variety of derivative instruments such as forward sales, and the purchase and sale of gold options. Some large companies such as Barrick Gold, Placer Dome, and Ashanthi Gold Fields have hedged major portions (upwards of 50% in some cases) of their gold reserves. While these hedging strategies reduce downside risk, they also limit gains from a sustained rally in the price of gold.

Newmont's management has avoided hedging its production because of its philosophy of providing its shareholders with the maximum exposure to gold price movements. Until recently,

the only hedging by Newmont pertained to a minor quantity of its production from an Indonesian mine. The absence of hedging combined with the steep decline in gold prices adversely affected Newmont's profitability. This decline in profitability is despite Newmont's success at cost reduction–its less than $180 an ounce cost of production is one of the lowest in the industry. As gold prices continued to fall, Newmont's stock price declined from a high of $60 in 1996 to under $20 in 1998. Its creditors became increasingly uncomfortable with the exposure of the company to falling gold prices. Accordingly, in July and August 1999 (when the gold price was near its 20-year low of $250 an ounce) Newmont decided to hedge part of its reserves, although the proportion of reserves hedged is still one of the lowest in the industry.

Newmont's hedging program is designed to protect near-term cash flows in case of any further decline in gold price but to preserve leverage for any gold price increase. Details of its hedging program and accounting treatment follows:

1. *Forward sales commitments and associated call options from Indonesian mine:* The company agreed to sell 125,000 ounces of gold per year through 2000 from an Indonesian mine at a price of $454 per ounce. According to the company, the purpose of this hedge is to accelerate income and mitigate country risk. The accounting treatment for this contract is hedge accounting—all unrealized gains and losses on the contracts are deferred until the delivery date of the associated ounces. At the time of delivery, the contract price is recognized in income. As a result, the accounting numbers should reflect the spirit of the investment, which is to lock-in the price of gold. The proceeds from sale of gold will be supplemented or offset by gains and losses on the related hedge contract. Outstanding sales commitments as of September 30, 1999, are:

	1999	2000
Ounces	31,250	125,000
Average price	$454	$454

Coincident with the forward sales contracts, the company purchased call options on 50,000 ounces of gold per year for the same time period. These options give the company the right, but not the obligation, to purchase gold at $454 per ounce. The effect of these options is to allow the company, in a rising gold price environment, to realize the market price above $454 per ounce on 40% of the ounces subject to the forward sales contracts. The accounting treatment for the call options is the same as the related forward sales contracts (hedge accounting—all unrealized gains and losses on the contracts are deferred until the delivery date of the associated ounces). In combination, the forward sales and associated calls allow Newmont to create a floor price for its future production without entirely losing out on the upside potential. Outstanding call options at September 30, 1999, are:

	1999	2000
Ounces	12,500	50,000
Average price	$454	$454

2. *Prepaid forward sales and purchases in July 1999:* In July 1999, the company entered into a prepaid forward sale agreement covering 483,333 ounces of gold for delivery in 2005, 2006, and 2007 and received $137.2 million. The proceeds were used to pay down its debt. The initial proceeds received on this sale were based on a $300 per ounce gold price. If gold price exceeds $300 per ounce at the time of delivery, the company will receive additional proceeds subject to a ceiling of $380 per ounce. The initial proceeds were recorded as deferred revenue. As gold is delivered against this contract, a proportionate amount of the deferred revenue will be recognized as sales income. The company also agreed to deliver 35,900 ounces per year from 2000 to 2007 in a prepaid manner. To facilitate contracting for a fixed price without losing the benefit of upside potential, the company simultaneously signed forward purchase contracts for like quantities at prices increasing from $263 per ounce in 2000 to $354 per ounce in 2007. The accounting treatment for this transaction involves increasing or reducing the sales income from the forward sales contracts by the difference between the market price and forward purchase price at the scheduled future delivery dates.
3. *Purchased put and call options in August 1999:* In August 1999, with the price of gold at a 20-year low, the company sought to establish a floor price for a portion of its production with the purchase of put options. These options gave the company the right, but not the obligation, to sell 2.85 million ounces of gold at $270 per ounce. If the gold price is above $270, the options expire unexercised and the company sells gold at the higher market price. To avoid paying cash for the put options, the company sold call options on 2.35 million ounces for delivery in 2004 to 2009 at prices ranging from $350 to $392 an ounce. The sales proceeds from the call options

exactly offset the purchase cost of the put options. The call options give the purchaser the right to buy the specified amount of gold at the stated strike price. If the market price is above the strike price at the time of maturity, the company can deliver the contracted quantity of gold to the option holder or roll the contracts over to a future delivery date. If the market price is below the strike price at the time of maturity, the options expire unexercised. Alternatively, the company can buy back the calls before they become exercisable. The written calls did not involve any margin-call risk or lease rates.

The accounting treatment for the put options is hedge accounting. As such, any gains and losses on the contracts are deferred until the exercise date. If the gold price is below $270, the company exercises the put option and recognizes $270 per ounce as sales income. If the gold price is above $270 the company sells gold at the higher market price. Although no cash was paid for the put options, the fair value of the options at the time of purchase (approximately $37 million) is recorded as a prepaid asset and amortized over the term of the put options (the amortization is accounted for as an offset against revenue).

Because the call options are longer term, an interpretation of GAAP requires the call options to be marked to market at the end of each quarter. The market value of the calls reflects the approximate price for which the options could be sold on the last day of each quarter. The initial fair value of the call options (the proceeds that would have been received if sold outright) is $37 million. Depending on the gold price and other factors that affect option pricing, the fair value can vary significantly from one quarter to the next, and the change in fair value is recognized as a gain or loss each quarter. By the end of the options' term, if gold price is below the strike price on the calls, the option value will be $0 and the initial $37 million fair value would have been included in income.

Subsequent Events:

While well-conceived hedging strategies reduce risk, in retrospect, the timing of the Newmont's hedging activities was unfortunate. In late September 1999 (just after the purchase of puts and writing of calls) the Consortium of European Central Banks, whose selling had contributed largely to the decline in the price of gold during the past 3 years, announced a moratorium on gold sales for the next 5 years. As a result, gold prices shot up from around $250 per ounce to over $300 per ounce in just a few days. Newmont was forced to recognize an unrealized loss on the written calls in its financial statements for the quarter ended September 1999 because the upward spike in gold price increased the fair value of the call options.

For the quarter ended September 1999, Newmont earned $2.3 million, or 2 cents per share, before noncash, hedge-related accounting charges. The average realized gold price for the period was $271 per ounce. This compares with earnings of $6.1 million, or 4 cents per share, at an average realized gold price of $295 per ounce in the corresponding quarter of 1998. In the quarter ended September 1999, gold production rose 4% to 1,043,000 ounces, while total cash costs were reduced 6% to $174 per ounce and total production costs declined 10% to $228 per ounce. As a result of the amortization of the put options and holding loss on the written long-dated calls, an after-tax noncash charge of $41.3 million is recorded in the September 1999 quarter. Given these holding losses, the company's net loss for the quarter is $39 million, or 23 cents per share.

Newmont believes the accounting applied to the long-dated call options is inappropriate and does not reflect the economic fundamentals of the hedging transaction. First, the company believes that marking only the written calls to market is inconsistent and distorts the economic reality of the company's underlying economic position. As a largely unhedged producer, the company's cash flow per quarter is expected to increase by $1 million for each $1 increase per ounce in the price of gold. Moreover, the company cannot mark its 52.6 million ounces of gold reserves to market value. Interestingly, the company points out that if the price of gold fell precipitously near the end of the next quarter, the company's fundamental value would decline but it would get to book a gain on its written call options. Second, the company argues that it has no cash flow exposure from the written calls unless it reverses the transaction. The written calls are not subject to margin calls or lease rates. The company has the necessary gold reserves to meet the committed quantities of gold, and the strike price of the calls is well above its cost of production. The company will incur an opportunity cost to the extent the prevailing gold price on the expiration of the calls is above the strike price. The company also notes that the accounting treatment is different from the long-standing industry practice of recording gains and losses only when realized and it induces unnecessary volatility to reported income.

NEWMONT MINING CORPORATION AND SUBSIDIARIES

Statement of Consolidated Operations
For quarter ended September 30

(in $millions)	1999	1998
Sales	$340.2	$349.9
Amortization of put option	(12.2)	—
Other income	9.8	2.7
	337.8	352.6
Cost of sales	(206.5)	(206.5)
Depreciation, depletion, and amortization	(60.7)	(72.9)
Exploration and research	(14.3)	(18.9)
General administrative	(12.5)	(11.7)
Other expenses	(4.2)	1.0
Interest (net)	(14.6)	(19.5)
Unrealized loss on written call options	(51.3)	—
Tax provision	7.8	3.3
Minority interest and equity loss	(20.5)	(21.3)
Net income	$ (39.0)	$ 6.1

BALANCE SHEET

As of September 30

(in $millions)	1999	1998		1999	1998
Assets			**Liabilities and Equity**		
Fair value of put options	$ 23.1	$ —	Current liabilities	$ 193.1	$ 212.5
Other current assets	467.9	513.1	Long-term debt	1,073.5	1,201.1
Total current assets	491.0	513.1	Deferred revenue	137.2	—
Noncurrent assets	2,792.2	2,673.7	Fair value of written calls	88.9	—
			Other liabilities	263.5	240.9
			Minority interest	117.6	92.8
			Liabilities	1,873.8	1,747.3
			Equity	1,409.4	1,439.5
Total assets	$3,283.2	$3,186.8	Total liabilities and equity	$3,283.2	$3,186.8

Required:

a. Describe and analyze the hedging transactions of Newmont. What is Newmont's motivation for each of its hedging transactions?

b. Because *SFAS 133* is effective for fiscal years beginning June 15, 1999, Newmont's September 1999 quarterly financials are not subject to the standard. Explain how each of the hedging transactions entered into by Newmont will be classified and accounted for under *SFAS 133.*

c. Examine the underlying economics for each of its hedging transactions. Does the accounting (both under *SFAS 133* and the earlier method employed by Newmont) reflect economic reality?

d. Newmont is not allowed to use hedge accounting for the written calls. Is this appropriate?

e. Evaluate Newmont's criticisms of the accounting for its written calls. Is Newmont's criticism justified?

f. What is the underlying economic reality of the sudden increase in gold price for Newmont? Do its financial statements reflect economic reality? Would marking all assets and liabilities to fair value improve the presentation of its balance sheet and income statement?

CASE 5–4[A]

Analyzing Translated Financial Statements and Intercorporate Investments

The December 31, Year 8, trial balance of SwissCo Ltd., a Swiss company, follows (in euros, €).

	Debit	Credit
Cash	€ 50,000	
Accounts receivable	100,000	
Allowance for doubtful accounts		€ 10,000
Inventory, January 1, Year 8	150,000	
Property, plant, and equipment (net)	800,000	
Accounts payable		80,000
Notes payable		20,000
Capital stock		100,000
Retained earnings, January 1, Year 8		190,000
Sales		2,000,000
Purchases (of inventory)	1,000,000	
Depreciation expense	100,000	
Other expenses (including taxes)	200,000	
	€2,400,000	€2,400,000

Additional Information:

1. SwissCo uses the periodic inventory system along with the FIFO costing method for inventory and cost of goods sold. On December 31, Year 8, the inventory balance is €120,000—it is carried at FIFO cost.
2. SwissCo capital stock was issued six years ago when the company was established; the exchange rate at that time was €1 = $0.30. The company purchased plant and equipment five years ago when the exchange rate was €1 = $0.35; also, the note payable was made out to a local bank at the same time.
3. Revenues are earned and expenses (including cost of goods sold) are incurred uniformly throughout Year 8. Inventory available at December 31, Year 8, is purchased throughout the second half of Year 8.
4. The December 31, Year 7, balance sheet (in U.S. dollars) of SwissCo shows Retained Earnings of $61,000.
5. The spot rates for the euro in Year 8 are:

January 1, Year 8	$0.32
Average for Year 8	$0.37
Average for second half of Year 8	$0.36
December 31, Year 8	$0.38

6. Management determined the functional currency of SwissCo is the euro. Therefore, use the current rate method.

Required:

a. Prepare a trial balance in U.S. dollars for SwissCo as of December 31, Year 8.

CHECK
(*b*) Net income, $247,900; Total assets, $402,800

b. Prepare an income statement for the year ended December 31, Year 8, and the balance sheet at December 31, Year 8 (both in U.S. dollars) for SwissCo.

c. Assume Unisco Corporation, a U.S. firm, purchases a 75% ownership interest in SwissCo at book value on January 1, Year 8. Prepare the entry Unisco makes at December 31, Year 8, to record its equity in SwissCo's Year 8 earnings. Unisco Corp. uses the equity method in accounting for its investment in SwissCo.

CASE 5–5[A]

Analyzing Translated Financial Statements

On December 31, Year 8, U.S. Dental Supplies (USDS) created a wholly owned foreign subsidiary, Funi, Inc. (FI), located in the country of Lumbaria. The condensed balance sheet of Funi as of December 31, Year 8, reported in local currency (the pont), follows:

FUNI, INC.
Balance Sheet
December 31, Year 8

	Ponts (millions)		Ponts (millions)
Assets		**Liabilities and Equity**	
Cash	180	Capital stock	600
Fixed assets (net)	420		
Total assets	600		

Funi initially adopted the U.S. dollar as its functional currency and translated its Year 9 balance sheet and income statement in accordance with U.S. accounting practice. These statements are reproduced here:

FUNI, INC.
Balance Sheet
December 31, Year 9

	Ponts (millions)	Exchange Rate (ponts/US$)	US$ (millions)		Ponts (millions)	Exchange Rate (ponts/US$)	US$ (millions)
Assets				**Liabilities and Equity**			
Cash	82	4.0	$ 20.5	Accounts payable	532	4.0	$133.0
Accounts receivable	700	4.0	175.0	Capital stock	600	3.0	200.0
Inventory	455	3.5	130.0	Retained earnings	465		112.5
Fixed assets (net)	360	3.0	120.0				
Total assets	1,597		$445.5	Total liabilities and equity	1,597		$445.5

FUNI, INC.
Income Statement
For Year Ended December 31, Year 9

	Ponts (millions)	Exchange Rate (ponts/US$)	US$ (millions)
Sales	3,500	3.5	$1,000.0
Cost of sales	(2,345)	3.5	(670.0)
Depreciation expense	(60)	3.0	(20.0)
Selling expense	(630)	3.5	(180.0)
Translation gain (loss)	—		(17.5)
Net income	465		$ 112.5

USDS subsequently instructed Funi to change its functional currency to the pont. The following exchange rates (pont per U.S. dollar) are applicable:

January 1, Year 9	3.0	Average for Year 9	3.5	December 31, Year 9	4.0

Required:

a. Prepare a pro forma balance sheet as of December 31, Year 9, and an income statement for the year ending December 31, Year 9, for Funi. Both statements should be prepared in U.S. dollars, using the pont as the functional currency for Funi.

b. Analyze and describe the comparative effects of selecting the dollar versus the pont as the functional currency for Funi:
(1) U.S. dollar balance sheet as of December 31, Year 10.
(2) U.S. dollar income statement for year ended December 31, Year 10.
(3) U.S. dollar financial ratios for Year 10.

(CFA Adapted)

CHECK
(*a*) Total assets, $399.25; Net income, $132.86