

CHAPTER THREE

3

A LOOK BACK

Chapters 1 and 2 presented an overview of financial statement analysis and financial reporting. We showed how financial statements report on financing, investing, and operating activities. We also introduced accounting analysis and explained its importance for financial statement analysis.

A LOOK AT THIS CHAPTER

This chapter describes accounting analysis of financing activities—both creditor and equity financing. Our analysis of creditor financing considers both operating liabilities and financing liabilities. Analysis of operating liabilities includes extensive study of postretirement benefits. Analysis of financing liabilities focuses on topics such as leasing and off-balance-sheet financing, along with conventional forms of debt financing. We also analyze components of equity financing and the relevance of book value.

A LOOK AHEAD

Chapters 4 and 5 extend our accounting analysis to investing activities. We analyze operating assets such as current assets and property, plant, and equipment, along with investments in securities and intercorporate acquisitions. Chapter 6 analyzes operating activities.

ANALYZING FINANCING ACTIVITIES

ANALYSIS OBJECTIVES

- Identify and assess the principal characteristics of liabilities and equity.
- Analyze and interpret lease disclosures and explain their implications and the adjustments to financial statements.
- Analyze postretirement disclosures and assess their consequences for firm valuation and risk.
- Analyze contingent liability disclosures and describe their risks.
- Identify off-balance-sheet financing and its consequences to risk analysis.
- Analyze and interpret liabilities at the edge of equity.
- Explain capital stock and analyze and interpret its distinguishing features.
- Describe retained earnings and their distribution through dividends.

Post-Enron World of SPEs

Enron used a financing technique called special purpose entities (SPEs) to conceal hundreds of millions of dollars of debt from investors and to avoid recognition of losses from its investments. These entities were thinly capitalized *shell companies*. Enron utilized SPEs purchase assets at inflated prices, which allowed it to prop up earnings.

Even worse, Enron used SPEs as counterparties for hedging activities. Those SPEs issued guarantees to Enron to protect its investments from a value decline. Since the SPEs were so thinly capitalized and were managed by Enron executives, Enron was essentially insuring itself.

For the most part, SPEs have been used for decades as a legiti-

mate financing technique and are very much in use today. Many retailers, for example, sell private label credit card receivables to an SPE that purchases them with funds raised from the sale of

Effects of FIN 46 on Costs and Viability of SPEs Are Yet Unclear.

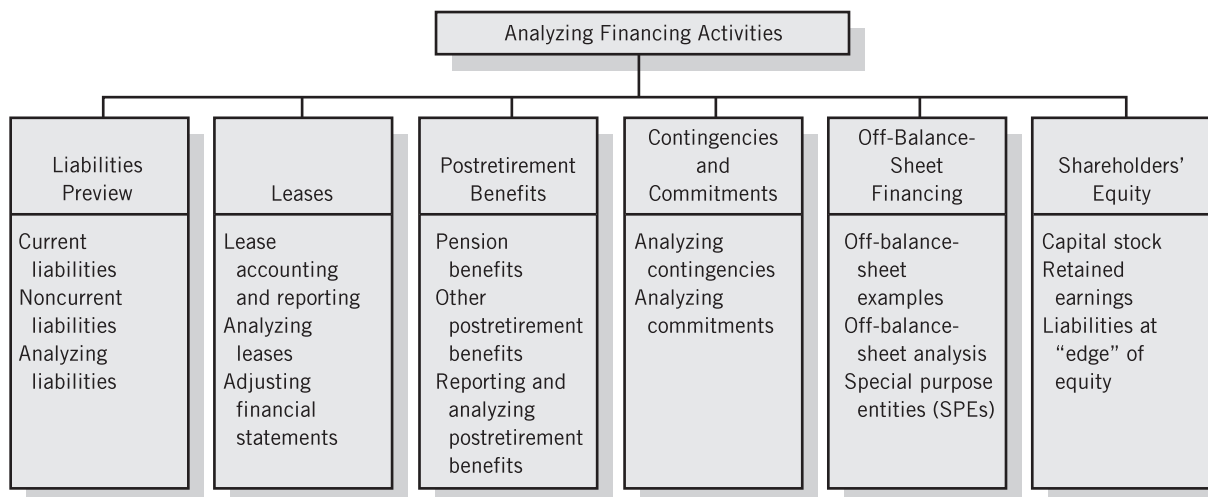
bonds to the investing public. Investors receive a quality investment and the company receives immediate cash. More generally, SPEs are an important financing tool for companies such as Target, Capital One, General Motors, Citigroup, and Dell.

However, Enron's failure and the resulting losses to investors prompted cries for stricter regulation. Congress responded with the Sarbanes-Oxley Act, and the FASB with FIN 46. FIN 46 has far-reaching effects as it requires consolidation of certain SPEs with the sponsoring company (deemed to be the "primary beneficiary"). This yields financial statements that reflect both the sponsoring company and its set of SPEs.

Abuses, such as those perpetrated by Enron, are less likely under these new accounting rules. Still, their effects on the viability and costs of SPEs as a legitimate financing tool are yet unclear.

PREVIEW OF CHAPTER 3

Business activities are financed with either liabilities or equity, or both. **Liabilities** are financing obligations that require future payment of money, services, or other assets. They are outsiders' claims against a company's present and future assets and resources. Liabilities can be either financing or operating in nature and are usually senior to those of equity holders. **Financing liabilities** are all forms of credit financing such as long-term notes and bonds, short-term borrowings, and leases. **Operating liabilities** are obligations that arise from operations such as trade creditors, and postretirement obligations. Liabilities are commonly reported as either **current** or **noncurrent**—usually based on whether the obligation is due within one year or not. **Equity** refers to claims of owners on the net assets of a company. Claims of owners are junior to creditors, meaning they are residual claims to all assets once claims of creditors are satisfied. Equity holders are exposed to the maximum risk associated with a company but also are entitled to all residual returns of a company. Certain other securities, such as convertible bonds, straddle the line separating liabilities and equity and represent a hybrid form of financing. This chapter describes these different forms of financing, how companies account and report for them, and their implications for analysis of financial statements.



.....LIABILITIES

We describe both current and noncurrent liabilities in this section. We also discuss their implications to financial statement analysis.

Current Liabilities

Current (or **short-term**) **liabilities** are obligations whose settlement requires the use of current assets or the incurrence of another current liability. The period over which companies expect to settle current liabilities is the longer of one year or the operating cycle. Conceptually, companies should record all liabilities at the present value of the cash outflow required to settle them. In practice, current liabilities are recorded at their maturity value, and not their present value, due to the short time period until their settlement.

DEBT CLASS

Improper classification of liabilities can affect key ratios in financial analysis.

Current liabilities are of two types. The first type arises from operating activities and includes taxes payable, unearned revenues, advance payments, accounts payable, and other accruals of operating expenses, such as wages payable. The second type of current liabilities arises from financing activities and includes short-term borrowings, the current portion of long-term debt, and interest payable.

Many borrowing agreements include covenants to protect creditors. In the event of default, say in the maintenance of a specified financial ratio such as the debt-to-equity ratio, the indebtedness becomes immediately due and payable. Any long-term debt in default must, therefore, be reclassified as a current liability. A violation of a noncurrent debt covenant does not require reclassification of the noncurrent liability as current provided that the lender waives the right to demand repayment for more than a year from the balance sheet date.

WR Grace (2004 10-K) provides an example of the treatment of debt for a bankrupt company:

ANALYSIS EXCERPT

Plan of Reorganization. All of the Debtors' pre-petition debt is in default due to the Filing. The accompanying Consolidated Balance Sheets reflect the classification of the Debtors' pre-petition debt within "liabilities subject to compromise."

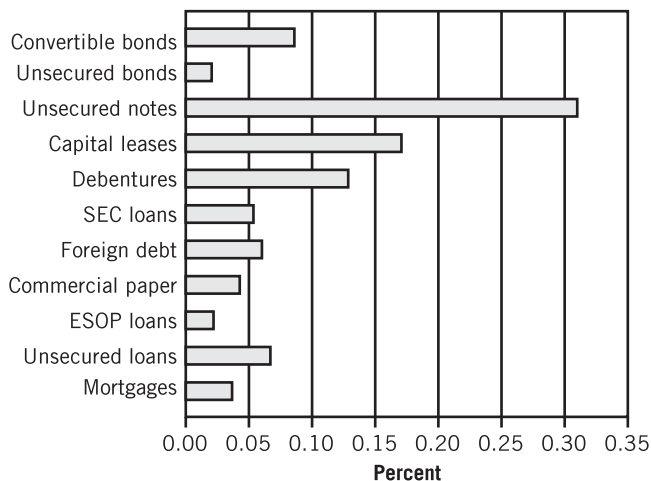
Accounting Impact. The accompanying Consolidated Financial Statements have been prepared in accordance with Statement of Position 90-7 ("SOP 90-7"), "Financial Reporting by Entities in Reorganization Under the Bankruptcy Code." SOP 90-7 requires that financial statements of debtors-in-possession be prepared on a going concern basis, which contemplates continuity of operations, realization of assets and liquidation of liabilities in the ordinary course of business. However, as a result of the Filing, the realization of certain of the Debtors' assets and the liquidation of certain of the Debtors' liabilities are subject to significant uncertainty. Pursuant to SOP 90-7, Grace's pre-petition liabilities that are subject to compromise are required to be reported separately on the balance sheet at an estimate of the amount that will ultimately be allowed by the Bankruptcy Court. . . . Such pre-petition liabilities include fixed obligations (such as debt and contractual commitments), as well as estimates of costs related to contingent liabilities (such as asbestos-related litigation, environmental remediation, and other claims).

Noncurrent Liabilities

Noncurrent (or long-term) liabilities are obligations that mature in more than one year (or the operating cycle if longer than one year). They include loans, bonds, debentures, and notes. Noncurrent liabilities can take various forms, and their assessment and measurement requires disclosure of all restrictions and covenants. Disclosures include interest rates, maturity dates, conversion privileges, call features, and subordination provisions. They also include pledged collateral, sinking fund requirements, and revolving credit provisions. Companies must disclose defaults of any liability provisions, including those for interest and principal repayments.

A bond is a typical noncurrent liability. The bond's par (or face) value along with its coupon (contract) rate determines cash interest paid on the bond. Bond issuers sometimes sell bonds at a price either below par (at a discount) or in excess of par (at a premium). The discount or premium reflects an adjustment of the bond price to yield the market's required rate of return. A discount is amortized over the life of the bond and increases the effective interest rate paid by the borrower. Conversely, any premium is also amortized but it decreases the effective interest rate incurred.

Frequencies of Noncurrent Liabilities



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BOWIE BONDS

David Bowie issued more than \$50 million in bonds backed by future royalties from 25 of his albums, including *Ziggy Stardust*, *Thin White Duke*, and *Let's Dance*.

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JUNK BONDS

Junk bond issuances in default fell from about 30% in the 80s to under 10% in the 90s, but rose to over 11% in the recession of the early 2000s.

Standard setters are contemplating radical changes to the manner in which long-term debt (specifically bonds) will be reported on the balance sheet. Instead of reporting bond values at amortized cost, bonds will be reported at their respective fair values (i.e. at their market values) on the balance sheet date (see Chapter 2 for a discussion of fair value accounting). All changes in bond values will be flowed through the income statement. As a major step toward reporting financial assets and liabilities at fair value, the FASB recently issued *SEAS 159* (known as the “fair value option” standard), which allows companies to voluntarily start recognizing all or any subset of its long-term debt at fair value. It is too early to tell how this fair value option will affect the financial statements. However, Chapter 5 features a more detailed discussion of this issue.

One troubling issue that arises when long-term debt is measured at fair value is that the value of a company’s reported long-term debt will *decrease* when the company’s credit standing worsens (this is because decreased creditworthiness will lower the market values of bonds). This reduction in reported bond values will create *income* for the company. The justification that FASB provides for this peculiar effect is that a reduction in a company’s credit standing will occur only if there is a substantial reduction in the fair value of the company’s assets. This reduction in assets’ fair value will cause a substantial loss during the period. Offsetting this loss through income created by decrease in fair value of debt will correctly reflect the share of losses borne by the equity and debt holders. This logic is illustrated in Illustration 3.1.

Illustration 3.1



Consider a company that has \$100 million in assets funded by \$50 million each of debt and equity. The company suffers a major downturn in its business during the period. Because of this, the fair value of its assets drops down to \$40 million. Note that because of limited liability, equity holders cannot be liable for more than their investment in the firm of \$50 million. Consequently, debt holders will have to incur a \$10 million loss in value. Consequently, the market value of the company’s debt drops to \$40 million. The economics of this situation is correctly reflected in financial statements prepared on a fair value basis as shown below:

Opening Balance Sheet		Closing Balance Sheet		Income Statement	
Assets	\$ 100	Assets	\$ 40	Asset impairment loss	\$ (60)
	<u>100</u>		<u>40</u>	Decrease in bond value	<u>10</u>
Debt	50	Debt	40	Income	<u>\$ (50)</u>
Equity	50	Equity	<u>0</u>		
	<u>\$ 100</u>		<u>\$ 40</u>		



CONVERTIBLES

In the past decade, convertible bonds yielded about 80% of the return of stock funds but with only 65% of the price volatility.

Bond issuers offer a variety of incentives to promote the sale of bonds and reduce the interest rate required. These include convertibility features and attachments of warrants to purchase the issuer’s common stock. We refer to this offer as a *convertible debt sweetener*.

Disclosure is also required for future payments on long-term borrowings and for any redeemable stock. This would include:

- Maturities and any sinking funds requirements for each of the next five years.
- Redemption requirements for each of the next five years.

Examples of disclosures for long-term liabilities are in Note 19 of the financial statements of Campbell Soup in Appendix A.

Analysis Research

ACCOUNTING-BASED LIABILITY RESTRICTIONS

Do all bonds offer holders the same degree of security for safeguarding their investments? Are all bonds of equal risk? How might we choose among bonds with identical payment schedules and coupon rates? Analysis research on liabilities provides us with some insight into these questions. Namely, bonds are not of equal risk, and an important factor of this risk relates to restrictions, or lack thereof, in liability agreements. Creditors establish liability restrictions (or covenants) to safeguard their investments. These restrictions often limit management behavior that might harm the interests of creditors. Violating any restriction

is usually grounds for “technical default,” providing creditors legal grounds to demand immediate repayment. Liability restrictions can reduce creditors’ risk exposure.

Restrictions on management behavior take many forms, including:

- Dividend distribution restrictions.
- Working capital restrictions.
- Debt-to-equity ratio restrictions.
- Seniority of asset claim restrictions.
- Acquisition and divestment restrictions.
- Liability issuance restrictions.

These restrictions limit the dilution of net assets by constraining management’s ability to distribute assets

to new or continuing shareholders, or to new creditors. Details of these restrictions are often available in a liability’s prospectus, a company’s annual report, SEC filings, and various creditor information services (e.g., *Moody’s Manuals*). Many restrictions are in the form of accounting-based constraints. For example, dividend payment restrictions are often expressed in the form of a minimum level of retained earnings that companies must maintain. This means the selection and application of accounting procedures are, therefore, potentially affected by the existence of liability restrictions.

Analyzing Liabilities

Auditors are one source of assurance in our identification and measurement of liabilities. Auditors use techniques like direct confirmation, review of board minutes, reading of contracts and agreements, and questioning of those knowledgeable about company obligations to satisfy themselves that companies record all liabilities. Another source of assurance is double-entry accounting, which requires that for every asset, resource, or cost acquired, there is a counterbalancing entry for the obligation or resource expended. However, there is *no* entry required for most commitments and contingent liabilities. In this case, our analysis often must rely on notes to financial statements and on management commentary in annual reports and related documents. We also can check on the accuracy and reasonableness of debt amounts by reconciling them to a company’s disclosures for interest expense and interest paid in cash. Any significant unexplained differences require further analysis or management explanation.

When liabilities are understated, we must be aware of a likely overstatement in income due to lower or delayed expenses. The SEC censure of various companies reinforces financial statement users’ concerns with full disclosure of liabilities as described here:

ANALYSIS EXCERPT

The SEC determined Ampex failed to fully disclose (1) its obligations to pay royalty guarantees totaling in excess of \$80 million; (2) its sales of substantial amounts of prerecorded tapes that were improperly accounted for as “degaussed,” or erased, to avoid payment of royalty fees; (3) income overstatements from inadequate allowances for returned tapes; and (4) multimillion dollar understatements in both its allowance for doubtful accounts receivable and its provisions for losses from royalty contracts.

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WHOLE TRUTH

The Truth-in-Lending Act requires lenders to give borrowers info about loan costs, including finance charges and interest rate.

We must also analyze the descriptions of liabilities along with their terms, conditions, and encumbrances. Results of this analysis can impact our assessments of both risk and return for a company. Exhibit 3.1 lists some important features we should review in an analysis of liabilities.

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Exhibit 3.1

Important Features in Analyzing Liabilities

- Terms of indebtedness (such as maturity, interest rate, payment pattern, and amount).
- Restrictions on deploying resources and pursuing business activities.
- Ability and flexibility in pursuing further financing.
- Obligations for working capital, debt to equity, and other financial figures.
- Dilutive conversion features that liabilities are subject to.
- Prohibitions on disbursements such as dividends.

Minimum disclosure requirements as to debt provisions vary, but we should expect disclosure of any breaches in loan provisions that potentially limit a company's activities or increase its risk of insolvency. Accordingly, we must be alert to any explanations or qualifications in the notes or in an auditor's report such as the following from American Shipbuilding:

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ANALYSIS EXCERPT

The credit agreement was amended . . . converting the facility from a revolving credit arrangement to a demand note. Under the amended agreement, the Company is required to satisfy specified financial conditions and is also required to liquidate its indebtedness to specified maximum limits . . . the Company had satisfied all these requirements except for the working capital covenant. Subsequent to that date, the Company has not maintained its compliance as to maximum indebtedness. In addition, the tangible net worth requirement was not met. . . . The Company has given notices to the agent bank of its failure to satisfy these requirements. . . . In addition to the restrictions described above, this credit facility places restrictions on the Company's ability to acquire or dispose of assets, make certain investments, enter into leases and pay dividends . . . the credit agreement disallowed the payment of dividends.

We wish to foresee problems such as these. One effective tool for this purpose is a comparative analysis of the terms of indebtedness with the *margin of safety*. Margin of safety refers to the extent to which current compliance exceeds minimum requirements.

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ LEASES

Leasing is a popular form of financing, especially in certain industries. A **lease** is a contractual agreement between a *lessor* (owner) and a *lessee* (user). It gives a lessee the right to use an asset, owned by the lessor, for the term of the lease. In return, the lessee makes rental payments, called *minimum lease payments* (or MLP). Lease terms obligate the

lessee to make a series of payments over a specified future time period. Lease contracts can be complex, and they vary in provisions relating to the lease term, the transfer of ownership, and early termination.¹ Some leases are simply extended rental contracts, such as a two-year computer lease. Others are similar to an outright sale with a built-in financing plan, such as a 50-year lease of a building with automatic ownership transfer at the end of the lease term.

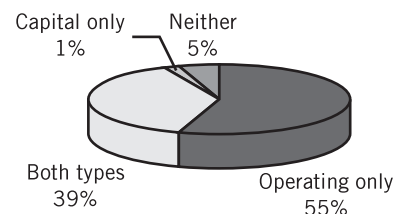
The two alternative methods for lease accounting reflect the differences in lease contracts. A lease that transfers substantially all the benefits and risks of ownership is accounted for as an asset acquisition and a liability incurrence by the lessee. Similarly, the lessor treats such a lease as a sale and financing transaction. This type of lease is called a **capital lease**. If classified as a capital lease, both the leased asset and the lease obligation are recognized on the balance sheet. All other types of leases are accounted for as **operating leases**. In the case of operating leases, the lessee (lessor) accounts for the minimum lease payment as a rental expense (revenue), and no asset or liability is recognized on the balance sheet.

Lessees often structure a lease so that it can be accounted for as an operating lease even when the economic characteristics of the lease are more in line with a capital lease. By doing so, a lessee is engaging in off-balance-sheet financing. *Off-balance-sheet financing* refers to the fact that neither the leased asset nor its corresponding liability are recorded on the balance sheet when a lease is accounted for as an operating lease even though many of the benefits and risks of ownership are transferred to the lessee. The decision to account for a lease as a capital or operating lease can significantly impact financial statements. Analysts must take care to examine the economic characteristics of a company's leases and recast them in their analysis of the company when necessary.

Leasing has grown in frequency and magnitude. Estimates indicate that almost one-third of plant asset financing is in the form of leasing. Leasing is the major form of financing plant assets in the retail, airline, and trucking industries. Lease financing is popular for several reasons. For one, sellers use leasing to promote sales by providing financing to buyers. Interest income from leasing is often a major source of revenue to those sellers. In turn, leasing often is a convenient means for a buyer to finance its asset purchases. Tax considerations also play a role in leasing. Namely, overall tax payments can be reduced when ownership of the leased asset rests with the party in the higher marginal tax bracket. Moreover, as described, leasing can be a source of off-balance-sheet financing. Used in this way, leasing is said to *window-dress* financial statements.

Our discussion of lease financing for the lessee begins with an explanation of the effects of lease classification on both the income statement and balance sheet. Next, we analyze lease disclosures with reference to those of Best Buy. We then provide a method for recasting operating leases as capital leases for analysis purposes when the economic characteristics support it. Our discussion also examines the impact of lease classification on financial statements and the importance of recasting leases for financial statement analysis. We limit our discussion to the analysis of leases for the lessee. Appendix 3A provides an overview of lease accounting and analysis for the lessor.

Frequencies of Different Lease Types—Lessee



¹ Some leases are cancellable, but the majority of the long-term leases are noncancellable. The power of the lessee to cancel the lease is an important factor determining the economic substance of the lease. We focus discussion on noncancellable leases.

Accounting and Reporting for Leases

Lease Classification and Reporting

A lessee (the party leasing the asset) classifies and accounts for a lease as a capital lease if, at its inception, the lease meets *any* of four criteria: (1) the lease transfers ownership of the property to the lessee by the end of the lease term; (2) the lease contains an option to purchase the property at a bargain price; (3) the lease term is 75% or more of the estimated economic life of the property; or (4) the present value of the minimum lease payments (MLPs) at the beginning of the lease term is 90% or more of the fair value of the leased property. A lease can be classified as an operating lease only when *none* of these criteria are met. Companies often effectively structure leases so that they can be classified as operating leases.

When a lease is classified as a capital lease, the lessee records it (both asset and liability) at an amount equal to the present value of the minimum lease payments over the lease term (excluding *executory costs* such as insurance, maintenance, and taxes paid by the lessor that are included in the MLP). The leased asset must be depreciated in a manner consistent with the lessee's normal depreciation policy. Likewise, interest expense is accrued on the lease liability, just like any other interest-bearing liability. In accounting for an operating lease, however, the lessee charges rentals (MLPs) to expense as they are incurred; and no asset or liability is recognized on the balance sheet.

The accounting rules require that all lessees disclose, usually in notes to financial statements: (1) future minimum lease payments separately for capital leases and operating leases for each of the five succeeding years and the total amount thereafter and (2) rental expense for each period that an income statement is reported.

Accounting for Leases—An Illustration

This section compares the effects of accounting for a lease as either a capital or an operating lease. Specifically, we look at the effects on both the income statement and the balance sheet of the lessee given the following information:

- A company leases an asset on January 1, 2005—it has no other assets or liabilities.
- Estimated economic life of the leased asset is five years with an expected salvage value of zero at the end of five years. The company will depreciate this asset on a straight-line basis over its economic life.
- The lease has a fixed noncancellable term of five years with annual minimum lease payments of \$2,505 paid at the end of each year.
- Interest rate on the lease is 8% per year.

We begin the analysis by preparing an amortization schedule for the leased asset as shown in Exhibit 3.2. The initial step in preparing this schedule is to determine the present (market) value of the leased asset (and the lease liability) on January 1, 2005. Using the interest tables near the end of the book, the present value is \$10,000 (computed as $3.992 \times \$2,505$). We then compute the interest and the principal amortization for each year. Interest equals the beginning-year liability multiplied by the interest rate (for year 2005 it is $\$10,000 \times 0.08$). The principal amount is equal to the total payment less interest (for year 2005 it is $\$2,505 - \800). The schedule reveals the interest pattern mimics that of a fixed-payment mortgage with interest decreasing over time as the principal balance decreases. Next we determine depreciation. Because this company uses straight line, the depreciation expense is \$2,000 per year (computed as $\$10,000/5$ years). We now have the necessary information to examine the effects of this lease transaction

Lease Amortization Schedule**Exhibit 3.2**

Year	Beginning-Year Liability	INTEREST AND PRINCIPAL COMPONENTS OF MLP			Year-End Liability
		Interest	Principal	Total	
2005.....	\$10,000	\$ 800	\$ 1,705	\$ 2,505	\$8,295
2006.....	8,295	664	1,841	2,505	6,454
2007.....	6,454	517	1,988	2,505	4,466
2008.....	4,466	358	2,147	2,505	2,319
2009.....	2,319	186	2,319	2,505	0
Totals		<u>\$2,525</u>	<u>\$10,000</u>	<u>\$12,525</u>	

on both the income statement and balance sheet for the two alternative lease accounting methods.

Let's first look at the effects on the income statement. When a lease is accounted for as an operating lease, the minimum lease payment is reported as a periodic rental expense. This implies a rental expense of \$2,505 per year for this company. However, when a lease is accounted for as a capital lease, the company must recognize both periodic interest expense (see the amortization schedule in Exhibit 3.2) and depreciation expense (\$2,000 per year in this case). Exhibit 3.3 summarizes the effects of this lease transaction on the income statement for these two alternative methods. Over the entire five-year period, total expense for both methods is identical. But, the capital lease method reports more expense in the earlier years and less expense in later years. This is due to declining interest expense over the lease term. Consequently, net income under the capital lease method is lower (higher) than under the operating lease method in the earlier (later) years of a lease.

We next examine the effects of alternative lease accounting methods on the balance sheet. First, let's consider the operating lease method. Because this company

Income Statement Effects of Alternative Lease Accounting Methods**Exhibit 3.3**

Year	OPERATING LEASE	CAPITAL LEASE		
	Rent Expense	Interest Expense	Depreciation Expense	Total Expense
2005.....	\$ 2,505	\$ 800	\$ 2,000	\$ 2,800
2006.....	2,505	664	2,000	2,664
2007.....	2,505	517	2,000	2,517
2008.....	2,505	358	2,000	2,358
2009.....	2,505	186	2,000	2,186
Totals.....	<u>\$12,525</u>	<u>\$2,525</u>	<u>\$10,000</u>	<u>\$12,525</u>

Exhibit 3.4**Balance Sheet Effects of Capitalized Leases**

Month/Day/Year	Cash	Leased Asset	Lease Liability	Equity
1/1/2005	\$ 0	\$10,000	\$10,000	\$ 0
12/31/2005	(2,505)	8,000	8,295	(2,800)
12/31/2006	(5,010)	6,000	6,454	(5,464)
12/31/2007	(7,515)	4,000	4,466	(7,981)
12/31/2008	(10,020)	2,000	2,319	(10,339)
12/31/2009	(12,525)	0	0	(12,525)

does not have any other assets or liabilities, the balance sheet under the operating lease method shows zero assets and liabilities at the beginning of the lease. At the end of the first year, the company pays its MLP of \$2,505, and cash is reduced by this amount to yield a negative balance. Equity is reduced by the same amount because the MLP is recorded as rent expense. This process continues each year until the lease expires. At the end of the lease, the cumulative amount expensed, \$12,525 (as reflected in equity), is equal to the cumulative cash payment (as reflected in the negative cash balance). This amount also equals the total MLP over the lease term as seen in Exhibit 3.2.

Let's now examine the balance sheet effects under the capital lease method (see Exhibit 3.4). To begin, note the balance sheet at the end of the lease term is identical under both lease methods. This result shows that the net accounting effects under the two methods are identical by the end of the lease. Still, there are major yearly differences before the end of the lease term. Most notable, at the inception of the lease, an asset and liability equal to the present value of the lease (\$10,000) is recognized under the capital lease method. At the end of the first year (and every year), the negative cash balance reflects the MLP, which is identical under both lease methods—recall that alternative accounting methods do not affect cash flows. For each year of the capital lease, the leased asset and lease liability are not equal, except at inception and termination of the lease. These differences occur because the leased asset declines by the amount of depreciation (\$2,000 annually), while the lease liability declines by the amount of the principal amortization (for example, \$1,705 in year 2005, per Exhibit 3.2). The decrease in equity in year 2005 is \$2,800, which is the total of depreciation and interest expense for the period (see Exhibit 3.3). This process continues throughout the lease term. Note the leased asset is always lower than the lease liability during the lease term. This occurs because accumulated depreciation at any given time exceeds the cumulative principal reduction.

This illustration reveals the important impacts that alternative lease accounting methods can have on financial statements. While the operating lease method is simpler, the capital lease method is conceptually superior, both from a balance sheet and an income statement perspective. From a balance sheet perspective, capital lease accounting recognizes the benefits (assets) and obligations (liabilities) that arise from a lease transaction. In contrast, the operating lease method ignores these benefits and obligations and fully reflects these impacts only by the end of the lease term. This means the balance sheet under the operating lease method fails to reflect the lease assets and obligations of the company.

Lease Disclosures

Accounting rules require a company with capital leases to report both leased assets and lease liabilities on the balance sheet. Moreover, all companies must disclose future lease commitments for both their capital and noncancellable operating leases. These disclosures are useful for analysis purposes.

We will analyze the lease disclosures in the Best Buy Co., Inc., 2004 annual report. As of its year-end, and despite the use of leasing as a financing alternative for many of its retail locations, Best Buy reports a capital lease liability of only \$16 million (versus \$5.23 billion in total liabilities) on its balance sheet. As a result, only a small portion of its leased properties are recorded on the balance sheet. Exhibit 3.5 reproduces the leasing footnote from the annual report and is typical of leasing disclosures. Best Buy

Lease Disclosures of Best Buy

Exhibit 3.5

Lease Commitments

We lease portions of our corporate facilities and conduct the majority of our retail and distribution operations from leased locations. The leases require payment of real estate taxes, insurance and common area maintenance, in addition to rent. Most of the leases contain renewal options and escalation clauses, and certain store leases require contingent rents based on specified percentages of revenue. Other leases contain covenants related to the maintenance of financial ratios. Transaction costs associated with the sale and lease back of properties and any related gain or loss are recognized over the period of the lease agreements. Proceeds from the sale and lease back of properties are included in other current assets. Also, we lease certain equipment under noncancellable operating and capital leases. The terms of our lease agreements generally range up to 20 years.

During fiscal 2004, we entered into a capital lease agreement totaling \$26 for point-of-sale equipment used in our retail stores. This lease was a noncash transaction and has been eliminated from our Consolidated Statement of Cash Flows. The composition of rental expenses for all operating leases, net of sublease rental income, during the past three fiscal years, including leases of property and equipment, was as follows:

(\$ millions)	2004	2003	2002
Minimum rentals	\$467	\$439	\$366
Contingent rentals	<u>1</u>	<u>1</u>	<u>1</u>
Total rent expense for continuing operations	<u>\$468</u>	<u>\$440</u>	<u>\$367</u>

The future minimum lease payments under our capital and operating leases, net of sublease rental income, by fiscal year (not including contingent rentals) as of February 28, 2004, are as follows (\$ millions):

Fiscal Year	Capital Leases	Operating Leases
2005	\$14	\$ 454
2006	3	424
2007	—	391
2008	—	385
2009	—	379
Thereafter	—	2,621
Subtotal	17	
Less: imputed interest	<u>(1)</u>	
Present value of capital lease obligations	<u>\$16</u>	

leases portions of its corporate offices, essentially all of its retail locations, a majority of its distribution facilities, and some of its equipment. Lease terms generally range up to 20 years. In addition to rental payments, the leases also require Best Buy to pay executory costs (real estate taxes, insurance, and maintenance). It is important to note that, in the present value computations that follow, only the minimum lease payments over the base lease term (not including renewal options), and not the executory costs, are considered.

The company classifies the vast majority of its leases as operating and provides a schedule of future lease payments in its notes to the financial statements. Best Buy will make \$454 million in payments on its leases in 2005, \$424 million in 2006, and so on.

Analyzing Leases

This section looks at the impact of operating versus capital leases for financial statement analysis. It gives specific guidance on how to adjust the financial statements for operating leases that should be accounted for as capital leases.

Impact of Operating Leases

While accounting standards allow alternative methods to best reflect differences in the economics underlying lease transactions, this discretion is too often misused by lessees who structure lease contracts so that they can use the operating lease method. This practice reduces the usefulness of financial statements. Moreover, because the proportion of capital leases to operating leases varies across companies, lease accounting affects our ability to compare different companies' financial statements.

Lessees' incentives to structure leases as operating leases relate to the impacts of operating leases versus capital leases on both the balance sheet and the income statement. These impacts on financial statements are summarized as follows:

- Operating leases understate liabilities by keeping lease financing off the balance sheet. Not only does this conceal liabilities from the balance sheet, it also positively impacts solvency ratios (such as debt to equity) that are often used in credit analysis.
- Operating leases understate assets. This can inflate both return on investment and asset turnover ratios.
- Operating leases delay recognition of expenses in comparison to capital leases. This means operating leases overstate income in the early term of the lease but understate income late in the lease term.
- Operating leases understate current liabilities by keeping the current portion of the principal payment off the balance sheet. This inflates the current ratio and other liquidity measures.
- Operating leases include interest with the lease rental (an operating expense). Consequently, operating leases understate both operating income and interest expense. This inflates interest coverage ratios such as times interest earned.

The ability of operating leases to positively affect key ratios used in credit and profitability analysis provides a major incentive for lessees to pursue this source of off-balance-sheet financing. Lessees also believe that classifying leases as operating leases helps them meet debt covenants and improves their prospects for additional financing.

Analysis Research**MOTIVATIONS FOR LEASING**

Finance theory suggests that leases and debt are perfect substitutes. However, there is little empirical evidence supporting this *substitution hypothesis*. Indeed, evidence appears to contradict this hypothesis. Namely, companies with leases carry a higher proportion of additional debt financing than those without leases. This gives rise to the so-called leasing puzzle. Further, there is considerable variation across companies on the extent of leasing as a form of financing. What then are the motivations for leasing?

One answer relates to taxes. Ownership of an asset provides the holder with tax benefits. This suggests that the entity with the *higher* marginal tax rate would hold ownership of the asset to take advantage of

greater tax benefits. The entity with the *lower* marginal tax would lease the asset. Empirical evidence supports this tax hypothesis. Other economic factors that motivate leasing include (1) an expected use period that is less than the asset's economic life, (2) a lessor that has an advantage in reselling the asset or has market power to force buyers to lease, and (3) an asset that is not specialized to the company or is not sensitive to misuse.

Financial reporting factors also explain the popularity of leasing over other forms of debt financing. While financial accounting and tax reporting need not be identical, use of operating leases for financial reports creates unnecessary obstacles when claiming capital lease benefits

for tax purposes. This explains the choice of capital leasing for some financial reports. Still, the choice of operating leasing seems largely dictated by managers' preference for off-balance-sheet financing. Capital leasing yields deterioration in solvency ratios and creates difficulties in raising additional capital. For example, there is evidence that capital leasing increases the tightness of debt covenants and, therefore, managers try to loosen debt covenants with operating leases. While there is some evidence that private debt agreements reflect different lease accounting choices, the preponderance of the evidence suggests that creditors do not fully compensate for alternative lease accounting methods.

Because of the impacts from lease classification on financial statements and ratios, an analyst must make adjustments to financial statements prior to analysis. Many analysts convert all operating leases to capital leases. Others are more selective. We suggest reclassifying leases when necessary and caution against indiscriminate adjustments. Namely, we recommend reclassification only when the lessee's classification appears inconsistent with the economic characteristics of the lease as explained next.

Converting Operating Leases to Capital Leases

This section provides a method for converting operating leases to capital leases. The specific steps are illustrated in Exhibit 3.6 using data from Best Buy's leasing note. It must be emphasized that while this method provides reasonable estimates, it does not precisely quantify all the effects of lease reclassification for financial statements.

The first step is to assess whether or not Best Buy's classification of operating leases is reasonable. To do this, we must estimate the length of the remaining period beyond the five years disclosed in the notes—titled “Thereafter” in the Best Buy notes of Exhibit 3.5. Specifically, we divide the reported MLP for the later years by the MLP for the last year that is separately reported. For Best Buy, we divide the total MLP for the later years of \$2.621 billion (for its 2004 operating leases) by the MLP reported in 2009, or \$379 million, to arrive at 6.9 years beyond 2004. Adding this number to the five years already reported gives us an estimate of about 12 years for the remaining lease term. These results suggest a need for us to reclassify Best Buy's operating leases as capital leases—that is, its 12-year commitment for operating leases is too long to ignore. In

Exhibit 3.6

Determining the Present Value of Projected Operating Lease Payments and Lease Amortization (\$ millions)

Year	Payment	Discount Factor	Present Value	Interest	Lease Obligation	Lease Balance
2004						\$3,321
2005	\$ 454	0.94518	\$ 429	\$193	\$261	3,060
2006	424	0.89336	379	178	246	2,814
2007	391	0.84439	330	163	228	2,586
2008	385	0.79810	307	150	235	2,351
2009	379	0.75435	286	136	243	2,108
2010	379	0.71299	270	122	257	1,851
2011	379	0.67390	255	107	272	1,579
2012	379	0.63696	241	92	287	1,292
2013	379	0.60204	228	75	304	988
2014	379	0.56904	216	57	322	666
2015	379	0.53784	204	39	340	326
2016	347	0.50836	176	21	326	0
Totals	<u>\$4,654</u>		<u>\$3,321</u>			

particular, whenever the remaining lease period (commitments) is viewed as significant, we need to capitalize the operating leases.

To convert operating leases to capital leases, we need to estimate the present value of Best Buy's operating lease liability. The process begins with an estimate of the interest rate that we will use to discount the projected lease payments. Determining the interest rate on operating leases is challenging. For companies that report both capital and operating leases, we can estimate the implicit interest rate on the capital leases and assume operating leases have a similar interest rate. The implicit rate on capital leases can be inferred by trial and error and is equal to that interest rate that equates the projected capital lease payments with the present value of the capital leases, both of which are disclosed in the leasing footnote.

Two problems can arise when inferring the interest rate from capital lease disclosures. First, it is impossible to use this method for companies that do report capital lease details. In such a case, we need to determine the yield on the company's long-term debt or debt with a similar risk profile and then use it as a proxy for the interest rate on operating leases. A second problem can arise when the interest rates on capital and operating leases are markedly different (this can arise when operating and capital leases are entered into at different times when the interest rates are different). In this scenario, we need to adjust the capital lease interest rate to better reflect the interest rate on operating leases.

Best Buy's bond rating is BBB, which results in an effective 10-year borrowing cost of about 5.8% in 2005. For the example that follows, we use 5.8% as a discount rate to determine the present value of the projected operating lease payments. This analysis is presented in Exhibit 3.6. Lease payments for 2005–2009 are provided in the leasing footnote as required. The estimated payments after 2009 are assumed equal to the 2009 payment and continue for the next seven years with a final lease payment of \$347 million in the 12th year (2016). Discounting these projected lease payments at 5.8% yields a present value of \$3.321 billion. This is the amount that should be added to Best Buy's reported liabilities.

The next step in our analysis is to compute the value of the operating lease asset. Recall that the asset value of a capital lease is always lower than its corresponding liability, but how much lower is difficult to estimate because it depends on the length of the lease term, the economic life of the asset, and the lessee's depreciation policy. Consequently, for analysis of operating leases, we assume that the leased asset value is equal to the estimated liability. For Best Buy, this means both the leased asset and lease liability are estimated at \$3.321 billion for 2004. We also can split the operating lease liability into its current and noncurrent components of \$261 million and \$3.06 billion, respectively.

Once we determine the operating lease liability and asset, we then must estimate the impact of lease reclassification on reported income. There are two expenses relating to capitalized leases—interest and depreciation. Interest expense is determined by applying the interest rate to the present value of the lease (the lease liability). For Best Buy, this is estimated at \$193 million for 2005, or 5.8% of \$3.321 billion (see Exhibit 3.6). Depreciation expense is determined by dividing the value of the leasehold asset by the remaining lease term. Assuming no residual value, depreciation of the \$3.321 billion in leased assets on a straight-line basis over the 12-year remaining lease term yields an annual depreciation expense of \$277 million. Total expense, then, is estimated at \$470 million (\$193 million + \$277 million) for 2005, compared with \$454 million in projected rent expense, an increase of \$16 million pretax.

Restating Financial Statements for Lease Reclassification

Exhibit 3.7 shows the restated balance sheet and income statement for Best Buy before and after operating lease reclassification using the results in Exhibit 3.6. The operating lease reclassification has a limited effect on Best Buy's 2004 income statement. Using

**Restated Balance Sheet after Converting Operating Leases to Capital Leases—
Best Buy 2004 (\$ millions)**

Exhibit 3.7



Income Statement		Before	After		
Sales		\$24,547	\$24,547		
Operating expenses		23,243	23,066		
Operating income before interest and taxes		1,304	1,481		
Interest expense (income)		8	201		
Income taxes		496	490		
Income from continuing operations		800	790		
Discontinued operations		(95)	(95)		
Net income		<u>\$ 705</u>	<u>\$ 695</u>		
Balance Sheet					
	Before	After		Before	After
Current assets	\$5,724	\$ 5,724	Current liabilities	\$4,501	\$ 4,762
Fixed assets	2,928	6,249	Long-term liabilities	729	3,789
			Stockholders' equity	3,422	3,422
Total assets	<u>\$8,652</u>	<u>\$11,973</u>	Total liabilities and equity	<u>\$8,652</u>	<u>\$11,973</u>

Exhibit 3.8**Effect of Converting Operating Leases to Capital Leases on Key Ratios—Best Buy 2004**

Financial Ratios	Before	After
Current ratio.....	1.27	1.20
Total debt to equity.....	1.53	2.50
Long-term debt to equity.....	0.21	1.11
Net income/Ending equity	20.6%	20.3%
Net income/Ending assets.....	8.1%	5.8%
Times interest earned.....	163.0	7.37

the calculations for 2005 depreciation and interest expense from Exhibit 3.6, Best Buy's 2004 income statement can be recast as follows:

- Operating expenses decrease by \$177 million (elimination of \$454 million rent expense reported in 2004 and addition of \$277 million of depreciation expense)²
- Interest expense increases by \$193 million (to \$201 million)
- Net income decreases by \$10 million [$\$16 \text{ million pretax} \times (1 - .35)$, the assumed marginal corporate tax rate] in 2004.

The balance sheet impact is more substantial. Total assets and total liabilities both increase markedly—by \$3.321 billion at the end of 2004, which is the present value of the operating lease liability. The increase in liabilities consists of increases in both current liabilities (\$261 million) and noncurrent liabilities (\$3.06 billion).

Exhibit 3.8 shows selected ratios for Best Buy before and after lease reclassification. The current ratio slightly declines from 1.27 to 1.20. However, reclassification adversely affects Best Buy's solvency ratios. Total debt to equity increases by 65% to 2.50, and the long-term debt to equity ratio jumps from 0.21 to 1.11. Best Buy's interest coverage (times interest earned ratio) decreases from 163.0 (because it is recording minimal interest expense prior to the reclassification) to 7.37, but remains very strong even after the operating lease adjustment.

Return on ending equity is largely unaffected because of the small change in after-tax income (meaning equity is not markedly affected by reclassification). Profitability components, however, are significantly affected. Return on ending assets decreases from 8.1% to 5.8% due to the increase in reported assets and its consequent effect on total asset turnover. Financial leverage has increased to offset this decrease, leaving return on equity unchanged. Although ROE is unaffected, our inferences about how this return is achieved are different. Following lease capitalization, Best Buy is seen as requiring significantly more capital investment (resulting in lower turnover ratios), and is realizing its ROE as a result of a higher level of financial leverage than was apparent from its unadjusted financial statements.

² The \$454 million of rent expense that is eliminated in this example is not equal to the \$468 million of rent expense reported for 2004 in Best Buy's leasing footnote (Exhibit 3.5). Replacing the actual rent expense would result in a more accurate elimination of current rent expense, but would result in inequality between the rent expense that is eliminated from operating expense and the depreciation and interest components that replace it. An alternative approach is to eliminate from current operating expense the projected minimum lease payments in the lease disclosures from the prior year and to replace that amount with the projected depreciation and interest components computed as of the beginning of the year. This approach also does not eliminate the current rent expense and, instead, presumes that only the minimum lease payment (MLP) that is projected for the current year be eliminated under the assumption that the actual expense includes contingent rentals that are not relevant for analysis. Implementation of this approach requires the capitalization of the leased asset and liability for both the opening and the closing balance sheets, and, thus, requires examination of the lease footnote from both the prior and current years. All approaches have strengths and weaknesses and all rely on some estimation, not only relating to the amount of rent expense eliminated, but also with respect to the discount rate used to compute the capitalized leased asset and liability.

Analysis Research**OPERATING LEASES AND RISK**

Analysis research encourages capitalizing noncancellable operating leases. The main impact of capitalizing these operating leases is an increase in the debt to equity and similar ratios with a corresponding increase in the company's risk assessment. An important question is whether off-balance-sheet operating leases actually do increase risk. Research has examined this question

by assessing the effect of operating leases on *equity risk*, defined as variability in stock returns. Evidence shows that the present value of noncapitalized operating leases increases equity risk from its impact on both the debt to equity ratio and the variability of return on assets (ROA).

Analysis research also shows that only the present value of future

MLPs impacts equity risk. Further, it shows that the contingent fee included in rental payments is not considered by analysts. This evidence favors the lease capitalization method adopted by accounting standards, instead of an alternative method that involves multiplying the lease rental payments by a constant.

.....POSTRETIREMENT BENEFITS

Employers often provide benefits to their employees after retirement. These **post-retirement benefits** come in two forms: (1) **pension benefits**, where the employer promises monetary benefits to the employee after retirement, and (2) **other post-retirement employee benefits (OPEB)**, where the employer provides other (usually nonmonetary) benefits after retirement—primarily health care and life insurance. Both types of benefits pose conceptually similar challenges for accounting and analysis. Current accounting standards require that the costs of providing postretirement benefits be recognized when the employee is in active service, rather than when the benefits are actually paid. The estimated present value of accrued benefits is reported as a liability for the employer. Because of the uncertainty regarding the timing and magnitude of these benefits, postretirement costs (and liabilities) need to be estimated based on *actuarial assumptions* regarding life expectancy, employee turnover, compensation growth rates, health care costs, expected rates of return, and interest rates.

Pensions and other postretirement benefits make up a major part of many companies' liabilities. Moreover, pensions constitute a large portion of the economy's savings and investments. Current estimates are that pension plans, with assets exceeding \$4 trillion cover nearly 50 million individuals. Also, pension funds control about 25% of the value of NYSE stocks, and account for nearly one-third of daily trading volume. While somewhat smaller in magnitude, OPEB, in particular health care costs, is also an important component of companies' employee costs. About one-third of U.S. workers participate in postretirement health care plans, with a total unfunded liability in the \$2 trillion range. Both pension and OPEB liabilities are likely to grow because of changing demographics and increased life expectancy.

Pension plans have been in the news over the past several years. During the early part of this decade, falling interest rates and the bear market resulted in a perfect storm for pension plans, resulting in what was dubbed the "pensions crisis." The pension plans of many companies became severely underfunded, and in a number of cases (e.g., United Airlines), companies filed for bankruptcy stating that it was not possible for them to meet their pension obligations. Pension accounting (under the old standard, *SEAS 87*) was implicated in precipitating this crisis by not highlighting this problem on a timely basis. Accordingly, the FASB has reformed pension accounting and recently passed a new standard (*SEAS 158*) to, at least in part, fix the problems with pension accounting.

We first explain the accounting for pensions and other postretirement benefits separately, and then jointly discuss disclosure requirements and analysis implications.

Pension Benefits

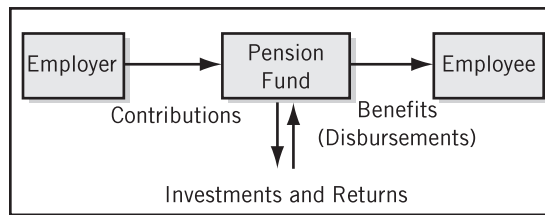
Pension accounting requires an understanding of the economics underlying pension transactions. Consequently, we first discuss the nature of pension transactions and the economics underlying pension accounting before discussing pension accounting requirements.

Nature of Pension Obligations

Pension commitments by companies are formalized through pension plans. A **pension plan** is an agreement by the employer to provide pension benefits to the employee, and it involves three entities: the employer, who contributes to the plan; the employee, who derives benefits; and the pension fund. The **pension fund** is independent of the employer and is administered by *trustees*. The pension fund receives contributions, invests them in an appropriate manner, and disburses pension benefits to employees. This pension plan process is diagrammed in Exhibit 3.9.

Exhibit 3.9

Elements of the Pension Process



Pension plans precisely specify the benefits and the rights and responsibilities of the employer and employee. Pension plans can be divided into two basic categories. **Defined benefit** plans specify the amount of pension *benefits* that the employer promises to provide to retirees. Under defined benefit plans, the *employer* bears the risk of pension fund performance. **Defined contribution** plans specify the amount of pension *contributions* that the employer makes to the pension plan. In this case, the actual amount of pension benefits to retirees depends on the pension fund performance. Under defined contribution plans, the *employee* bears the risk of pension fund performance.

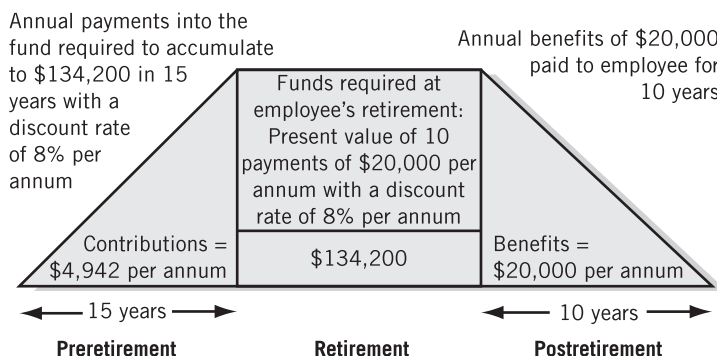
In both plans, employee benefits are usually determined through a formula linked to employee wages. Defined contribution plans *immediately* obligate the employer to pay some fixed proportion of the employees' current compensation, whereas defined benefit plans require the employer to periodically pay the employee a predetermined sum of money *after retirement* until the employee's death.

Pension payments are also affected by vesting provisions. **Vesting** is an employee's right to pension benefits regardless of whether the employee remains with the company or not. This right is usually conferred after the employee has served some minimum specified period with the employer.

Once the pension liability is determined, **funding** the expense becomes a managerial decision for defined benefit plans that is influenced by legal and tax considerations. Tax law specifies minimum funding requirements to ensure the security of retirees' benefits. It also has tax deductibility limitations for overfunded pension plans. Minimum

POSTGAME

Major league baseball players need only play a quarter of a season to receive some pension. A fully vested MLB pension exceeds \$125,000 a year.

Pension Accumulation and Disbursement for a Defined Benefits Plan**Exhibit 3.10**

funding requirements also exist under the Employee Retirement Income Security Act (ERISA). A company has the option to fund the plan exactly (by providing assets to the plan trustee that equal the pension liability) or it can overfund or underfund the plan.

We focus attention on defined benefit plans because of the challenge they pose to analysis of financial statements.³ Exhibit 3.10 depicts the time line for a simple defined benefit plan. This case involves a single employee who is expected to retire in 15 years and is paid an annual fixed pension of \$20,000 for 10 years after retirement. The discount (interest) rate is assumed to be 8% per year. We also assume the employer exactly funds the plan. While a simplification, this exhibit reflects the economics underlying defined pension plans. These plans involve current investments by the employer for future payments of benefits to the employee. The challenges for accounting are estimating the employer's pension plan liability and determining the pension expense (cost) for the period, which is different from the funding (actual contributions made) by the employer. For this purpose, accountants rely on assumptions made by specialists known as actuaries.

Economics of Pension Accounting

The challenge in accounting for defined benefit plans is that accounting estimates of liabilities and expenses need to be created for cash payments that may occur many years into the future. We will briefly discuss the underlying economic issues that affect pension accounting. Appendix 3B provides a detailed explanation of pension accounting with a comprehensive example.

Refer back to the example in Exhibit 3.10. If the employer needs to pay \$20,000 per year for 10 years after retirement, he or she needs to have funds to the tune of \$134,200 on the date of retirement. How do we arrive at this sum? It is the present value of \$20,000 paid each year for the next 10 years at a discount (interest) rate of 8%. (Refer to Table 4 of the "Interest Tables" at the rear of this book for details of how to compute the present value of an annuity). Therefore, the employer's obligation (or liability) on the date of retirement is \$134,200. We can extend this logic to determine the employer's obligation during the prior 15 years. For example, what is the employer's obligation at the start of the accumulation period, that is, 15 years before retirement? It is \$42,305, which is the present value of \$134,200 payable 15 years hence discounted at 8% per year. (Refer to Table 2 of the "Interest Tables" at the rear of this book for how to

³ Accounting for, and analysis of, defined contribution plans is straightforward. That is, the periodic contribution by the employer is recognized as an expense in the period when it is due. There are no other liabilities of serious note.

compute present value). Therefore, the employer's liability at the start of the 15-year accumulation period is \$42,305. We refer to this as the **pension obligation**.

Now consider what happens a year later. At the start of the second year (which is also the end of the first year), the employer's pension obligation has increased to \$45,690, which is the present value of \$134,200 due 14 years later. Note that the pension obligation has increased by \$3,655 ($\$45,690 - \$42,305$) because of passage of time; we refer to this increase in the pension obligation as the **interest cost**. Meanwhile the employer has made **contributions** of \$4,942 into the plan (see Exhibit 3.10). Because these contributions are invested in the capital markets, we refer to these contributed (and invested) funds as the **plan assets**. The net obligation of the employer, therefore, is \$41,018, which is the difference between the pension obligation (\$45,690) and the plan assets (\$4,942). We refer to the net assets of the pension plan (i.e., Plan assets – Pension obligation) as the **funded status**. Because the obligation is more than the asset value, the plan is said to be *underfunded*. If the asset value exceeds the obligation, the funded status is said to be *overfunded*.

Now examine what happens yet another year later, that is, after two years of accumulation. The pension obligation is now \$49,345 (present value of \$134,200 payable in 13 years), resulting in interest cost for the year of \$3,385. What about the employer's plan assets? Two events happen on the assets' side. First, the employer makes another contribution of \$4,942. Second, the contribution made at the end of the first year earns a return of \$395 ($8\% \times \$4,942$). We call this return the **return on plan assets**.⁴ Therefore, the plan assets at the end of the second year are equal to \$10,279 ($\$4,942 + \$4,942 + \395) and the funded status is now underfunded to the tune of \$39,066 ($\$49,345 - \$10,279$). From an accounting point, it is evident that the funded status of \$39,066 should appear as a liability in the balance sheet. What about the income statement effect? The net **pension cost** for the year is \$2,990 (interest cost of \$3,385 less return on plan assets of \$395).

In reality, of course, pension plans are much more complex than that depicted in this example. For example, pension benefits payable to employees in typical defined benefit plans are proportional to the years of service that the employee puts with the employer. Because of this, the employer's obligation increases with every additional year of employee service (independent of the present value effect represented by interest cost), giving rise to another component of the pension cost called **service cost**. Service cost is the most important component of pension cost because pension costs arise only through employee service, in the absence of employee service, there is no obligation to pay pensions.

Additionally, the actuarial assumptions underlying the computation of the pension obligation—there are many, such as discount or interest rate, compensation growth rates, life expectancy, employee turnover—are subject to change, giving rise to large swings in the value of the pension obligation. These changes give rise to nonrecurring components of pension cost called **actuarial gain or loss**. To complicate matters further, pension contracts are renegotiated with employees, resulting in retroactive benefits, which give rise to another type of nonrecurring expense called **prior service cost**. Finally, it should be noted that returns on capital markets can be volatile, and therefore the actual return on plan assets can fluctuate over time. For all these reasons, the true economic pension cost can be volatile over time. As we will see later, much of the complexity in pension accounting arises from attempts to dampen volatility in the pension cost included in net income.

Finally, we need to understand how actual cash inflows and outflows from the plan affect the funded status. The major cash inflow into the plan comes through **employer**

⁴ For simplicity, in this example we assume that the return on plan assets is equal to the discount rate. In reality, the return on plan assets can differ from the discount rate (usually the long-term return on plan assets is higher than the discount rate).

contributions, which understandably increase plan asset values. The major cash outflows from the plan are **benefit payments** to retired employees. Benefit payments reduce both plan assets (because cash has been paid from the plan assets) and the pension obligation (because part of the promised payments to the employees have been made) by exactly the same amount. Therefore, benefit payments do not affect the net funded status of the plan.

Pension Accounting Requirements

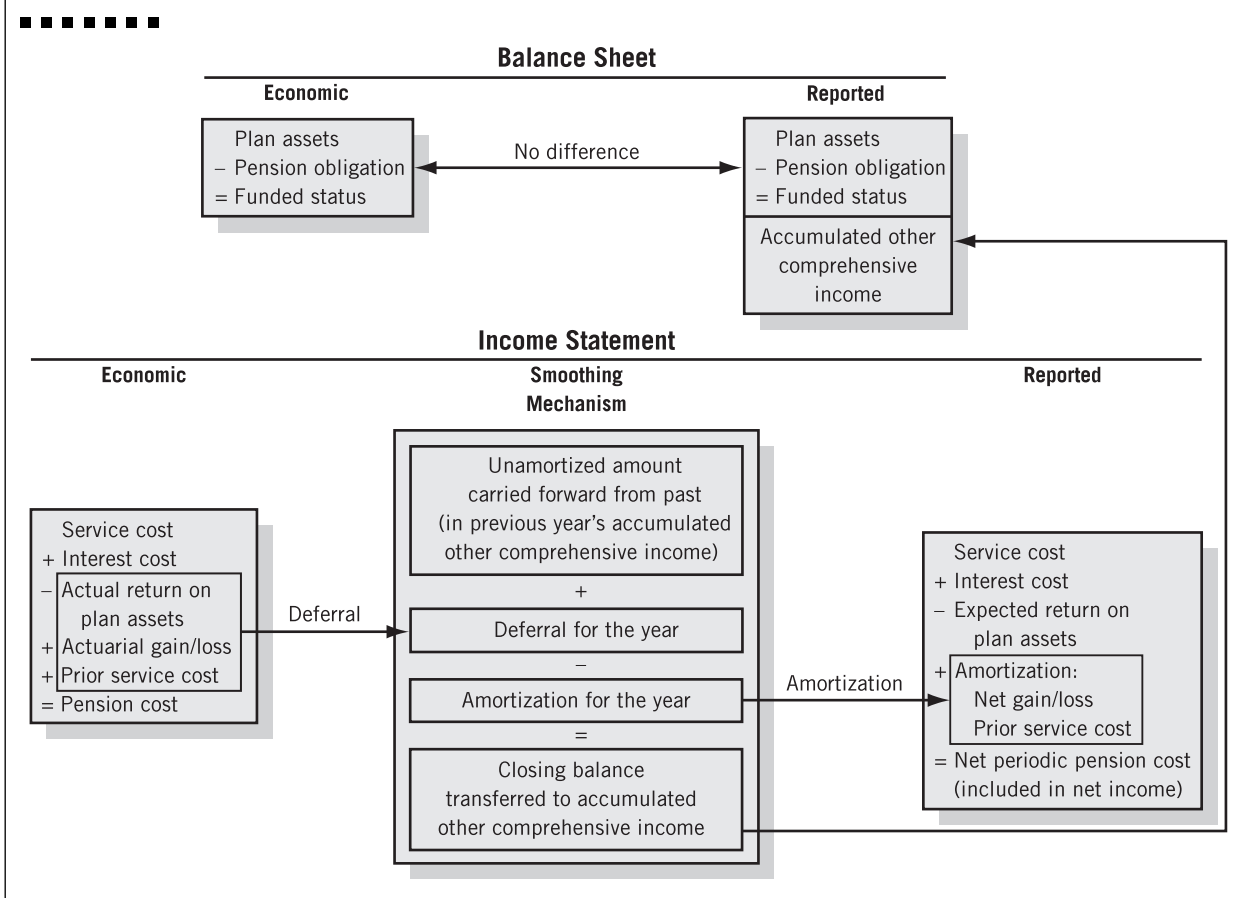
The basic framework for pension accounting under GAAP was first specified under standard *SEAS 87*. The focus of *SEAS 87* was obtaining a stable and permanent measure of pension expense. Accordingly, the pension expense included in net income—called the **net periodic pension cost**—smoothed volatile components of the pension cost (such as actuarial gains/losses, prior service cost or actual returns on plan asset) by delaying their recognition through a process of deferral and amortization. To articulate the balance sheet with the income statement, *SEAS 87* recognized merely the cumulative net periodic pension cost (termed *accrued* or *prepaid* pension cost) on the balance sheet instead of the plan's funded status. Because of this, pensions (and OPEBs) were a major source of off-balance-sheet liabilities (or assets, as the case may be). *SEAS 87* was severely criticized for this reason. Responding to criticism, the FASB recently issued *SEAS 158*, which reports the actual funded status of the pension plan on the balance sheet. The pension expense included in net income, however, remains *SEAS 87*'s net periodic pension cost. The difference between the economic pension cost (which includes the volatile components) and the net periodic pension cost (which is the smoothed version specified under *SEAS 87*) is included in *other comprehensive income* for the period, which accumulates as *accumulated other comprehensive income*, which is part of shareholders' equity. Exhibit 3.11 provides an overview of current pension accounting under *SEAS 158*. However, the reader is encouraged to refer to Appendix 3B for a deeper understanding of pension accounting.

Recognized Status on the Balance Sheet. Current pension accounting (*SEAS 158*) recognizes the funded status of the pension plans on the balance sheet. The funded status is the difference between the current market value of the pension plan assets and the pension obligation. The pension obligation definition used is the **projected benefit obligation** or PBO. The PBO is based on *estimated* employee compensation at the retirement date (rather than current compensation), which is estimated using assumptions regarding compensation growth rates. Refer to Appendix 3B for details of PBO computation. Two details need to be noted with regard to reported status on the balance sheet. First, pension assets and obligations are netted against each other (as funded status) rather than separately reported both as an asset and a corresponding liability. Second, companies do not report the funded status of pension plans as a separate line item on the balance sheet. Instead, the funded status is embedded in various assets and liabilities.

Recognized Pension Cost. As noted earlier, the recognized pension cost included in net income (i.e., the **net periodic pension cost**) is a smoothed version of the actual economic pension cost for the period. The smoothing process, *defers* (i.e., delays recognizing) volatile, one-time items such as actuarial gains or losses and prior service cost. Also, instead of recognizing the actual return on plan assets (which can be volatile), an **expected return on plan assets**—which is an estimate of the long-term return on the plan assets—is recognized in reported pension expense. The difference between the actual and expected return is also deferred. These deferred amounts are gradually recognized in income through a process of amortization. Accordingly, the net periodic

Exhibit 3.11

Overview of Pension Economics and Accounting



pension cost includes service cost, interest cost, expected return on plan assets and amortization of deferred items.

Articulation of Balance Sheet and Income Statement Effects. Because all changes to the funded status (which is recognized in the balance sheet) are not included in the recognized pension cost, the balance sheet and income statement effects of pensions will not articulate. To articulate the two effects, the **net deferral** for the period (i.e., the amount deferred less the amount amortized) is included in *other comprehensive income* for the period, while the **cumulative net deferral** is included in *accumulated other comprehensive income*, which is a component of shareholders' equity. Therefore, the smoothing process adopted by current pension accounting (*SEAS 158*) allows the volatile components of pension expense to directly transfer to shareholder's equity without affecting the period's net income.

Accounting under SFAS 87. The current pension rules under *SEAS 158* became operational only from late 2006 onward. Prior to that, pension accounting requirements were specified under *SEAS 87*. Because *SEAS 158* is so recent, it is important for analysts to have some idea of *SEAS 87*. The accounting treatment under *SEAS 87* and *SEAS 158* are identical but for one major difference. Like *SEAS 158*, *SEAS 87* also recognizes the smoothed net periodic pension cost in income. However, unlike *SEAS 158*, *SEAS 87* did not recognize the funded status on the balance sheet. Instead, the earlier standard merely recognizes the accumulated net periodic pension cost on the balance sheet as **accrued or**

prepaid pension cost.⁵ In other words, the net deferrals that *SEAS 158* includes in accumulated other comprehensive income are altogether kept off the balance sheet under *SEAS 87*.

Other Postretirement Employee Benefits

Other postretirement employee benefits (OPEB) are certain other benefits provided by employers to retirees and their designated dependents. The primary constituent of OPEB is health care benefits. In addition, companies provide life insurance and, in rare cases, housing assistance. The underlying economics and the accounting treatment for OPEB are very similar to that for pensions—*SEAS 158* governs the accounting for both pensions and OPEB. Specifically, as with pensions, (1) OPEB costs are recognized when incurred rather than when actually paid out; (2) assets of the OPEB plan are offset against the OPEB obligation, and returns from these assets are offset against OPEB costs; and (3) actuarial gains and losses, prior service costs, and the excess of actual return over expected return on plan assets are deferred and subsequently amortized.

While OPEBs pose accounting challenges similar to those posed by pensions, there are some major differences. One difference is funding. Both because no legal requirements exist for OPEB (in contrast with ERISA requirements for pensions) and because funding them is not tax deductible (unlike pension contributions, which are), few companies specifically fund these postretirement liabilities. While companies back these obligations with assets on their balance sheets, the OPEB fund's trustees have no control over these assets. Another major difference is that OPEBs are often in the form of promised *services*, such as health care benefits, rather than monetary compensation. Accordingly, estimating these benefit obligations is especially difficult and requires a different set of actuarial assumptions. For example, trends in health care cost and the extent of Medicare usage affect estimates of health care obligations.

Other than these economic differences, OPEB accounting is directly similar to pension accounting. The balance sheet recognizes the funded status, which is the difference between the OPEB obligation and any plan assets specifically designated to meet this obligation. The OPEB obligation is called the **accumulated postretirement benefit obligation (APBO)**. The OPEB cost included in net income is termed the **net periodic postretirement cost** and includes service cost, interest cost, expected return on plan assets and amortization of deferred amounts, exactly as in the case of pensions. Also, the cumulative net deferrals are included in accumulated other comprehensive income. Refer to Appendix 3B for more details regarding OPEB accounting.

Reporting of Postretirement Benefits

Reporting requirements for postretirement benefits (pensions and OPEBs) are specified in *SEAS 158*, which prescribes similar disclosure formats for both OPEBs and pension benefits. Companies rarely report as separate line items either the funded status in the balance sheet or the postretirement benefit cost in the income statement. However, the standard mandates extensive disclosures in footnotes, including details about economic and reported amounts relating to the funded status and the postretirement benefit cost, details about actuarial assumptions, and other relevant information.

Exhibit 3.12 shows excerpts from the postretirement benefits footnote in the 2006 annual report of AMR Corporation (American Airlines). AMR reports details for



HEALTH GAIN

Technology affects postretirement benefit assumptions. For example, life expectancy at birth in the Western world grew from 45 years in 1900 to over 75 years in 2000.

⁵ *SFAS 87* does recognize an ad hoc amount in other accumulated comprehensive income called the additional minimum pension liability. However, to keep things simple, we shall ignore this element in our analysis.

Exhibit 3.12 Excerpts from Post Retirement Benefits Footnote—AMR Corporation

The following table provides a reconciliation of the changes in the pension and OPEB obligations and fair value of plan assets for the years ended December 31, 2006 and 2005 and a statement of funded status on those dates (\$ millions):

	PENSION		OPEB	
	2006	2005	2006	2005
Change in benefit obligation:				
Benefit obligation at January 1	\$11,003	\$10,022	\$ 3,384	\$ 3,303
Service cost	399	372	78	75
Interest cost	641	611	194	197
Plan amendments (prior service cost)			(27)	
Actuarial (gains) losses	(390)	649	(212)	(12)
Benefits payments	(605)	(651)	(161)	(179)
Benefit obligation at December 31	<u>\$11,048</u>	<u>\$11,003</u>	<u>\$ 3,256</u>	<u>\$ 3,384</u>
Change in plan assets:				
Fair value of plan assets at January 1	\$ 7,778	\$ 7,335	\$ 161	\$ 151
Actual return on plan assets	1,063	779	31	11
Employer contributions	329	315	171	178
Benefits paid	(605)	(651)	(161)	(179)
Fair value of plan assets at December 31	<u>\$ 8,565</u>	<u>\$ 7,778</u>	<u>\$ 202</u>	<u>\$ 161</u>
Funded status of plan	<u>\$(2,483)</u>	<u>\$(3,225)</u>	<u>\$(3,054)</u>	<u>\$(3,223)</u>
Less unrecognized amounts:				
Prior service cost		\$ (169)		\$ 60
Net gain (loss)		(2,174)		(299)
Additional minimum liability		1,381		
Amount recognized in balance sheet	<u>\$(2,483)</u>	<u>\$(2,263)</u>	<u>\$(3,054)</u>	<u>\$(2,984)</u>
Current liability	\$ (8)	\$ (251)	\$ (187)	
Long term liability	(2,475)	(2,012)	(2,867)	\$(2,984)
	<u>\$(2,483)</u>	<u>\$(2,263)</u>	<u>\$(3,054)</u>	<u>\$(2,984)</u>
Amounts recognized in accumulated other comprehensive income (loss):				
Prior service credit (cost)	\$ (153)		\$ 77	
Net gain (loss)	(1,310)		(70)	
Additional minimum liability		\$ (1,381)		
	<u>\$(1,463)</u>	<u>\$(1,381)</u>	<u>\$ 7</u>	

The following table provides components of the net periodic benefit cost for the years ended December 31, 2006, 2005, and 2004 (\$ millions)

	PENSION			OPEB		
	2006	2005	2004	2006	2005	2004
Service cost	\$ 399	\$ 372	\$ 358	\$ 78	\$ 75	\$ 75
Interest cost	641	611	567	194	197	202
Expected return on plan assets	(669)	(658)	(569)	(15)	(14)	(11)
Amortization of prior service cost	16	16	14	(10)	(10)	(10)
Amortization of net (gain) loss	80	51	57	1	2	8
Net periodic benefit cost	<u>\$ 467</u>	<u>\$ 392</u>	<u>\$ 427</u>	<u>\$248</u>	<u>\$ 250</u>	<u>\$ 264</u>

(continued)

Excerpts from Post Retirement Benefits Footnote—AMR Corporation (concluded)

	PENSION		OPEB	
	2006	2005	2006	2005
Weighted Average Actuarial Assumptions				
Discount rate	6.00%	5.75%	6.00%	5.75%
Compensation growth rate	3.78%	3.78%	3.78%	3.78%
Expected return on plan assets	8.75%	9.00%	8.75%	9.00%
Health care cost trend			9.00%	4.50%
OPEB Obligation				
Impact of 1% change in assumed health care rate (\$ million)	<u>Increase</u>	<u>Decrease</u>	<u>Increase</u>	<u>Decrease</u>
	243	(236)	26	(24)

As of December 31, 2006, the Company's estimate of the long-term rate of return on plan assets was 8.75% based on the target asset allocation. Expected returns on longer duration bonds are based on yields to maturity of the bonds held at year-end. Expected returns on other assets are based on a combination of long-term historical returns, actual returns on plan assets achieved over the last 10 years, current and expected market conditions, and expected value to be generated through active management, currency overlay, and securities lending programs. The Company's annualized 10-year rate of return on plan assets as of December 31, 2006, was approximately 11.8%.

The Company's pension plan weighted-average asset allocations at December 31, by asset category are as follows:

	2006	2005	Target
Long-duration bonds	37%	37%	40%
U.S. stocks	30%	31%	25%
International stocks	21%	21%	20%
Emerging market stocks	6%	6%	5%
Alternative (private) investments	6%	5%	10%
	100%	100%	100%

Each asset class is actively managed and the plans' assets have produced returns, net of management fees, in excess of the expected rate of return over the last 10 years. Stocks and emerging market bonds are used to provide diversification and are expected to generate higher returns over the long-term than longer duration U.S. bonds. Public stocks are managed using a value investment approach in order to participate in the returns generated by stocks in the long-term, while reducing year-over-year volatility. Longer duration U.S. bonds are used to partially hedge the assets from declines in interest rates. Alternative (private) investments are used to provide expected returns in excess of the public markets over the long term. Additionally, the Company engages currency overlay managers in an attempt to increase returns by protecting non-U.S.-dollar denominated assets from a rise in the relative value of the U.S. dollar. The Company also participates in securities lending programs in order to generate additional income by loaning plan assets to borrowers on a fully collateralized basis.

The Company expects to contribute approximately \$364 million to its defined benefit pension plans and \$13 million to its OPEB plan in 2007. In addition to making contributions to its OPEB, the Company funds the majority of the benefit payments under this plan. This estimate reflects the provisions of the Pension Funding Equity Act of 2004 and the Pension Protection Act of 2006.

The following is an estimate of future benefit payments, that also reflect future service: (\$ million)

	2007	2008	2009	2010	2011	2012–2016
Pension	\$ 543	\$ 584	\$ 689	\$ 681	\$ 662	\$ 3,843
OPEB	187	196	204	214	223	1,163

both pensions and OPEBs in identical formats. The note consists of five main parts: (1) an explanation of the reported position in the balance sheet, (2) details of net periodic benefit costs, (3) information regarding actuarial and other assumptions, (4) information regarding asset allocation and funding policies, and (5) expected future contributions and benefit payments. Recognize that while a single set of numbers is reported for pension and for OPEB plans, in reality these numbers are aggregations of many different plans. Also note that while the 2006 numbers are prepared in accordance with the latest pension standard (*SEAS 158*), the 2005 numbers are presented using the earlier standard (*SEAS 87*). We shall primarily limit our discussion to the pension plans and refer to the OPEB disclosures only occasionally.

The information regarding reported position in the balance sheet, comprises two main parts. The first part explains movement in the benefit obligation and plan assets and the determination of the funded status at the end of the year. The second part comprises details of how the pension plan's funded status is reported in the balance sheet. In 2006, AMR reports funded status of \$2,483 million underfunded for pension plans. This is exactly the amount recognized in the balance sheet. In 2005, however, the amount recognized in the balance sheet of \$2,263 million underfunded is different from the funded status of \$3,225 million underfunded. This difference is explained by certain items that are unrecognized (i.e., kept off the balance sheet) under *SEAS 87*: cumulative net deferrals of \$2,343 million, comprising \$169 million prior service cost and \$2,174 million net gain/loss, and an additional minimum liability of \$1,381 million.⁶ (Note that net (gain) loss is the sum of actuarial gains/losses and the difference between actual and expected return on plan assets that are added together and deferred collectively.) In 2006, cumulative net deferrals are reported under "amounts recognized in accumulated other comprehensive income (loss)," totaling to \$1,463 million (\$153 million prior service cost plus \$1,310 million net gain/loss). By recognizing the cumulative net deferral in accumulated other comprehensive income, *SEAS 158* articulates the amounts on the balance sheet and income statement without having to keep items off the balance sheet as *SFAS 87* did. Finally, notice that the net pension obligation is primarily included as part of long-term liabilities in the balance sheet.

The beginning and ending funded status are reconciled through explanation of changes to both the obligation and the plan assets. The change in pension obligation is explained by economic recurring and nonrecurring costs less benefits paid. In 2006, AMR's gross pension cost (Service cost + Interest cost – Actuarial gain) increased the pension obligation by \$650 million. The pension obligation decreased by the amount of benefits paid (\$605 million), resulting in a net increase of \$45 million (from \$11,003 million to \$11,048 million). Turning to the plan assets, AMR's actual return on the pension assets was \$1,063 million. In addition AMR contributed \$329 million to the pension plan. However, \$605 million of benefits were paid out, resulting in a net increase of \$787 million (from \$7,778 million to \$8,565 million) in plan assets. The increase in the obligation of \$45 million was more than offset by the increase in plan assets of \$787 million, resulting in a net improvement in funded status by \$742 million (from \$3,225 million underfunded to \$2,483 million underfunded).

The information reported for OPEBs is similar to that for pensions. The only noteworthy difference is that unlike with pensions, the OPEB plans are very significantly underfunded (plan assets of \$202 million compared to an obligation of \$3,256 million). Most companies do not fund the OPEB obligation because there is no legal requirement to do so.

⁶ The additional minimum postretirement liability is an ad hoc adjustment under *SFAS 87*. Because this issue is irrelevant under the new standard (*SFAS 158*), we shall ignore this item in our future discussion.

AMR also explains how the net periodic benefit cost (i.e., the reported cost) for both pensions and OPEBs is computed. As illustrated in Exhibit 3.11, reported pension (and OPEB) costs include recurring costs (service cost and interest cost), less the *expected* return on plan assets plus amortization of deferred nonrecurring items. In 2004, AMR's service and interest cost for pension plans are \$399 million and \$641 million, respectively, while its expected return on pension plan assets is \$669 million. There are two amortization items: prior service cost of \$16 million and net (gain) loss of \$80 million. The net periodic pension (benefit) cost for 2006 is \$467 million. This is the amount that is charged to the year's income, although it does not appear as a separate line item on the income statement. The periodic benefit cost for OPEBs is determined in a similar manner.

The footnote also provides a host of additional qualitative and quantitative information. We begin by examining some of the important actuarial assumptions underlying the computation of the pension and the OPEB benefit obligations and periodic benefit cost. In 2006, AMR increased its assumption regarding discount rate to 6% (from 5.75%), maintained its compensation growth assumption at 3.78%, and reduced its expected return on plan assets to 8.75% (from 9%). Finally, AMR doubled its assumption regarding health care cost trend rate to 9% in 2006 (from 4.5% in 2005). The note also provides sensitivity analysis regarding how changes in the health care cost trend assumption would affect the OPEB obligation and the reported OPEB cost. Finally, the note provides explanations for AMR's actuarial assumption choices.

The next section of the footnote provides information about AMR's plan asset allocations. AMR allocates 37% of its portfolio to bonds and 57% to equity securities, of which 27% are allocated to international markets. Finally, 6% of its assets comprise private investments. The target allocations are 40% bonds, 50% equity securities, and 10% alternative (private) investments. Therefore, the current allocation appears to overweight equity investments compared to the target allocation. AMR also provides some description of how it manages its investments and notes that its actual investment returns have exceeded expectations.

The final part of the note provides information regarding AMR's anticipated contributions and estimated benefit payments. For example, AMR expects to contribute \$364 million (\$13 million) to its pension (OPEB) plans in 2007. In addition, a table of anticipated benefit payments over the next 10 years is provided. AMR's anticipated benefit payments over the next 10 years is expected to be more than \$7 billion for pensions and more than \$2 billion for OPEBs.

Analyzing Postretirement Benefits

Analysis of postretirement benefit disclosures is an important task, both because of the magnitude of these obligations and because of the complexity of the accounting. We provide a five-step procedure for analyzing postretirement benefits: (1) determine and reconcile the reported and economic benefit cost and liability (or asset), (2) make necessary adjustments to financial statements, (3) evaluate actuarial assumptions and their effects on financial statements, (4) examine pension risk exposure, and (5) consider the cash flow implications of postretirement benefit plans.

Reconciling Economic and Reported Numbers

Exhibit 3.13 provides reconciliation between economic and reported benefit costs separately for pensions, OPEBs, and in total. The economic pension cost for AMR is an *income* of \$413 million, largely because of the \$1,063 million actual return on assets and the \$390 million actuarial gain. In comparison, reported pension cost (included in net

Exhibit 3.13 Reconciling Economic and Reported Numbers—AMR Corporation**Economic and Reported Postretirement Cost—2006**

\$ million	PENSION			OPEB			TOTAL		
	Economic	Net Deferral	Reported	Economic	Net Deferral	Reported	Economic	Net Deferral	Reported
Service cost	\$ 399		\$ 399	\$ 78		\$ 78	\$ 477		\$ 477
Interest cost	641		641	194		194	835		835
Return on plan assets	(1,063)	\$ (394)	(669)	(31)	\$ (16)	(15)	(1,094)	\$ (410)	(684)
Actuarial (gain) loss	(390)	(390)		(212)	(212)		(602)	(602)	
Plan amendment (PSC)					(27)			(27)	
Amortization:									
Net gain/loss		(80)	80		(1)	1		(81)	81
Prior service cost		(16)	16		10	(10)		(6)	6
Total	<u>\$ (413)</u>	<u>\$ (880)</u>	<u>\$ 467</u>	<u>\$ 29</u>	<u>\$ (246)</u>	<u>\$ 248</u>	<u>\$ (384)</u>	<u>\$ (1,126)</u>	<u>\$ 715</u>

Economic and Recognized Amounts on Balance Sheet—2006 and 2005

	2006			2005		
	Pension	OPEB	Total	Pension	OPEB	Total
Plan assets	\$ 8,565	\$ 202	\$ 8,767	\$ 7,778	\$ 161	\$ 7,939
Benefit obligation	11,048	3,256	14,304	11,003	3,384	14,387
Funded status (economic)	<u>\$ (2,483)</u>	<u>\$ (3,054)</u>	<u>(5,537)</u>	<u>\$ (3,225)</u>	<u>\$ (3,223)</u>	<u>\$ (6,448)</u>
Less unrecognized:						
Net gain (loss)			(2,174)	(299)	(2,473)	
Prior service cost			(169)	60	(109)	
Total unrecognized			<u>\$ (2,343)</u>	<u>\$ (239)</u>	<u>\$ (2,582)</u>	
Additional minimum liability			1,381		1,381	
Total off-balance-sheet			<u>\$ (962)</u>	<u>\$ (239)</u>	<u>\$ (1,201)</u>	
Amount recognized	<u>\$ (2,483)</u>	<u>\$ (3,054)</u>	<u>\$ (5,537)</u>	<u>\$ (2,263)</u>	<u>\$ (2,984)</u>	<u>\$ (5,247)</u>
Amount included in accumulated other comprehensive income:						
Net gain (loss)	\$ (1,310)	\$ (70)	\$ (1,380)			
Prior service cost	(153)	77	(76)			
Total	<u>\$ (1,463)</u>	<u>\$ 7</u>	<u>\$ (1,456)</u>			

Reconciling Movement in Cumulative Net Deferrals during 2006

	PENSION			OPEB			TOTAL		
	Net Gain/ Loss	Prior Service Cost	Total	Net Gain/ Loss	Prior Service Cost	Total	Net Gain/ Loss	Prior Service Cost	Total
Opening balance	\$ (2,174)	\$ (169)	\$ (2,343)	\$ (299)	\$ 60	\$ (239)	\$ (2,473)	\$ (109)	\$ (2,582)
Net deferral during 2006	864	16	880	229	17	246	1,093	33	1,126
Closing balance	<u>\$ (1,310)</u>	<u>\$ (153)</u>	<u>\$ (1,463)</u>	<u>\$ (70)</u>	<u>\$ 77</u>	<u>\$ 7</u>	<u>\$ (1,380)</u>	<u>\$ (76)</u>	<u>\$ (1,456)</u>

income) is an *expense* of \$467 million. This difference arises because the entire \$390 million of actuarial gain and \$394 million of the return on plan assets (specifically, the excess of actual return of \$1,063 million over expected return of \$669 million) are deferred. In addition, \$96 million of amortization (\$80 million net gain/loss and \$16 million prior service cost) is included in the reported cost, resulting in a net deferral of \$880 million. A similar situation prevails with respect to OPEB. Therefore, in total (pensions and OPEB together), AMR recognizes a benefit *cost* of \$715 million (in net income) during 2006, even though economically it generated benefit related *income* of \$384 million, because it deferred a net amount of \$1,126 million. It must be noted that from 2006 onward (under the new standard, *SEAS 158*), the economic benefit income of \$384 million will be recognized in *comprehensive income* and the net deferrals of \$1,126 will be included in *other comprehensive income* for the year. This was not the case prior to 2006 (under *SEAS 87*).

Exhibit 3.13 next compares the net economic position (funded status) to the amount reported in the balance sheet. In 2006, AMR's funded status for pension plans was \$2,483 million underfunded. These amounts are reported in the balance sheet as a net *liability*. Therefore, the amount recognized in the balance sheet is the funded status of the pension plans. This was not the case prior to 2006, where the accounting was dictated by an earlier standard, *SEAS 87*. In 2005, while AMR's pension plan's funded status was \$3,225 million underfunded, the amount recognized in the balance sheet was a liability of only \$2,263 million. The difference between the funded status and the amounts recognized in the balance sheet is \$962 million and is made up of (1) \$2,343 million of unrecognized net deferrals—\$2,174 net (gain) loss and \$169 million prior service cost—and (2) \$1,381 offsetting additional minimum liability, which is an ad hoc adjustment. The corresponding cumulative net deferral amounts in 2006 (for pensions) total \$1,463 million—\$1,310 million net (gain) loss and \$153 million prior service cost—and are included in accumulated comprehensive income.

In total (pensions plus OPEB), AMR's funded status of \$5,537 million underfunded is reported as a liability in 2006, with cumulative net deferrals of \$1,456 million reported in accumulated other comprehensive income. In contrast in 2005, only \$5,247 million underfunded—out of the funded status of \$6,448 million underfunded—was recognized as a liability and a total of \$1,201 million was kept off the balance sheet, which included unrecognized net deferrals of \$2,582 million and \$1,381 additional minimum pension liability.

For 2006, we also analyze the movement in net deferrals. For brevity, we limit our discussion only to the total postretirement plans (i.e., pension plus OPEB). The opening balance of cumulative net deferrals (unrecognized in 2005) is \$2,582 million, comprising \$2,473 million net (gain) loss and \$109 million prior service cost. Net deferrals during 2006 (refer to top panel of Exhibit 3.13 for details) were \$1,126 million—\$1,093 million relating to net gain/loss (\$410 million + \$602 million + \$81 million) and \$33 million relating to prior service cost (\$27 million + \$6 million). Combining the 2006 net deferrals (\$1,126 million) with the opening balance (\$2,582 million), provides the 2006 net deferral closing balance of \$1,456 million—\$1,380 million net (gain) loss and \$76 million prior service cost—which are included in accumulated other comprehensive income in the 2006 balance sheet.

Our analysis of the movement in net deferrals mirrors the effects that *SEAS 158* is expected to have on accumulated other comprehensive income. The opening and closing balances in the net deferrals would be included in accumulated comprehensive income in successive balance sheets, and the net deferral amount for the year would be included in the year's other comprehensive income. Unfortunately, because AMR adopted *SEAS 158* in 2006, the effects on accumulated comprehensive income during 2006 are complicated and cannot be readily reconciled with the movement in net deferrals.

Adjusting the Income Statement and Balance Sheet

Exhibit 3.14 illustrates the adjustments for AMR's 2006 opening and closing balance sheets and income statement from our analysis of its pension and OPEB disclosures. The use of economic benefit costs rather than reported costs results in 2006 net income that is \$714 million higher, an increase of more than 300% over the reported income of \$231 million. This increase in income is driven by a \$1,099 million decrease in operating expenses—the difference between the economic benefit income of \$384 million and reported benefit cost of \$715 million—offset by an increase in the tax provision of \$385 million (using a tax rate of 35%). Because the economic position (funded status) is recognized in the balance sheet in 2006 (under *SEAS 158*), no adjustments are necessary. However, the balance sheet does not reflect the funded status in 2005 (under *SEAS 87*), so we need to make adjustments. Specifically, we need to add \$1,201 million—which is the net amount kept off the balance sheet—to noncurrent liabilities and adjust it to shareholders' equity.

Exhibit 3.14

Adjusting Financial Statements—AMR Corporation

\$ million	2006			2005		
	Reported	Economic	Difference	Reported	Economic	Difference
Income Statement						
Operating revenues	\$ 22,563	\$ 22,563				
Operating expenses	(21,503)	(20,404)	\$1,099			
Operating income	\$ 1,060	\$ 2,159				
Interest	(829)	(829)				
Tax provision		(385)	(385)			
Net income	<u>\$ 231</u>	<u>\$ 945</u>	<u>\$ 714</u>			
Balance Sheet						
Assets						
Current	\$ 6,902	\$ 6,902		\$ 6,164	\$ 6,164	
Noncurrent	22,243	22,243		23,331	23,331	
Total	<u>\$ 29,145</u>	<u>\$ 29,145</u>		<u>\$ 29,495</u>	<u>\$ 29,495</u>	
Liabilities and Equity						
Current liabilities	\$ 8,505	\$ 8,505		\$ 8,272	\$ 8,272	
Noncurrent liabilities	21,246	21,246		22,653	23,854	\$ 1,201
Shareholders' equity	(606)	(606)		(1,430)	(2,631)	\$ (1,201)
Total	<u>\$ 29,145</u>	<u>\$ 29,145</u>		<u>\$ 29,495</u>	<u>\$ 29,495</u>	
Ratios						
Total debt to total assets	1.02	1.02		1.05	1.09	
Long-term debt to total assets	0.73	0.73		0.77	0.81	
Pretax return on assets	3.62%	7.36%				
Net income/Total assets	0.79%	3.22%				

Using net economic position (funded status) instead of the reported position (accrued pension cost) marginally increases both debt to equity ratios in 2005 (note we compute these ratios as debt over total assets because AMR's equity is negative). Also, using the economic benefit cost (income), instead of the reported benefit cost significantly increases return on assets: the pre-tax return on assets (Pretax operating income \div Average total assets) almost doubles from 3.62% to 7.36%, while the ratio of net income to average total assets (we are unable to compute ROE because shareholders' equity is negative) increases dramatically from 0.79% percent to 3.22% (an increase of more than 300%). Overall, recognizing the economic effects of AMR's postretirement plans in income substantially affects our evaluation of the company's financial performance.

To this point, we have examined the effects of reflecting the economic status of postretirement benefits on financial statements. Yet, an analyst must address at least three additional questions:

What postretirement benefit cost should be charged to income?

What liability should be reflected on the balance sheet, and in what format?

What are the effects of actuarial assumptions on both the income statement and the balance sheet?

We answer the first two questions in this section. The third question is addressed in the next section.

At first glance it seems that the appropriate cost to be reflected in the income statement should be the economic benefit cost. A deeper examination suggests the answer is not so obvious. Recall that reported benefit cost differs from economic cost primarily because transitory effects—such as actuarial gains and losses, prior service cost, and abnormal return on assets—are deferred and gradually amortized into reported cost through the smoothing process. The purpose of this smoothing is to obtain a more stable or permanent component of postretirement benefit cost. Accordingly, the appropriate benefit cost that should be applied for determining income depends on the objectives of the analysis. If the analyst wishes to measure permanent income (see Chapters 2 and 6), then reported cost is probably a more appropriate measure. In addition, the inclusion of nonrecurring items makes the economic benefit cost very volatile. Including this volatile economic benefit cost in net income can lead to concealing the underlying operating income of the company. For these reasons, *SEAS 158* chooses to smooth the reported benefit cost. However, if the objective of the analysis is to determine economic income, then an analyst should consider all transitory elements in income, which implies that the more useful measure of benefit cost is economic cost.

A related issue is whether benefit cost is part of operating or nonoperating income. Presumably, postretirement benefits are an integral part of employee compensation and should be classified as operating. However, further analysis reveals that not all components of these benefits are operating in nature. Certainly, service cost and related nonrecurring components such as prior service cost are operating in nature. But interest cost, return on plan assets, and related nonrecurring components, such as net gain or loss, are financing in nature and should therefore be included as part of nonoperating income.

For the second question, we turn to the balance sheet and note that the funded status reflects the true economic position of the plan and therefore is the appropriate measure of the benefit plans' net assets. Recall that the funded status is determined using the projected benefit obligation (PBO), which is determined using the expected wages of

employees *at retirement*. However, an employer is legally liable for the pension obligation based on only on *current* wages. This obligation is termed the *accumulated benefit obligation* or ABO. To the extent an analyst is interested in evaluating the liquidating value of a company's net assets, a better measure of the pension liability is the ABO. Unfortunately, many companies (as in the case of AMR) do not report ABO. This means an analyst must at least concede that the pension obligation is overstated when determining liquidating value and make subjective downward adjustments to this obligation.

An analyst must also assess whether the proper balance sheet preparation is the netting of plan assets against its liabilities (as currently reported) or the separate disclosure of plan assets and plan liabilities. This issue is more than one of mere presentation. For example, if plan assets are not netted against liabilities, AMR's total debt to equity and long-term debt to equity ratios would be significantly larger. Proper presentation depends on the underlying economics of the benefit plans. One argument is that the employer's liability is only to the extent of underfunding and that the employer has no control over the benefit fund's assets, which are administered by independent trustees. This argument favors netting the fund's assets against its obligation.

It must be noted that recognizing the net economic position (funded status) on the balance sheet and the economic benefit cost in income is consistent with fair value accounting (see Chapter 2). As part of the push toward a widespread adoption of fair value accounting, the FASB is currently working on a plan to eliminate the smoothing provisions (deferral and amortization of nonrecurring items) and recognize the economic benefit cost in income within the next few years. The FASB is also considering separating the operating and nonoperating components of the pension cost and also debating whether pension assets and liabilities must be netted or reported separately.

Analysis Research



MARKET VALUATION OF PENSIONS

Analysis methods involve several adjustments to better reflect the economic reality of pension plans. For example, we suggest that the funded status of a plan is its "true" economic position. Also, we suggest the proper pension liability for a going concern is its PBO and that its correct balance sheet presentation is one that nets pension liabilities and plan assets as funded status. We also maintain that the net periodic pension cost (reported pension cost) is more relevant for analysis. While these assertions are reasonable, it is important to assess whether they are

valid. Research attempts to address their validity by examining stock price behavior. There is evidence that the stock market views the unfunded pension obligation (i.e., the negative of the funded status) as the correct pension liability. This applies both when determining company value and when assessing systematic risk. The market also views pension assets and obligations separately as assets and liabilities of the company, rather than simply as a net amount. We also find that the market values all components of the PBO—indicating the PBO is the

proper measure of the pension obligation. However, the market appears to attach more than \$1 of value for every \$1 of PBO. Recent research also suggests that the net periodic pension cost (i.e., the smoothed reported pension cost) is a better measure of the pension cost than the economic pension cost that includes the nonrecurring items. In fact, including the nonrecurring items in the pension cost can reduce the ability of the financial statements to reflect either the company's market value or the riskiness of its debt.

Actuarial Assumptions and Sensitivity Analysis

It is tempting to think of the net economic position (or the economic cost) of a company's benefit plans as a reliable estimate of its underlying economic fundamentals. In reality, this is not so. While the value of plan assets is based on verifiable numbers (typically market values), the benefit obligation is estimated using a number of actuarial assumptions, such as the discount rate. Moreover, the reported cost (net periodic benefit cost) is also sensitive to actuarial assumptions, such as the expected return on plan assets. Because of this sensitivity, managers may manipulate these assumptions to window-dress the financial statements. Accordingly, an important task in analysis of postretirement benefits is evaluating the reasonableness of actuarial assumptions used by the employer. This includes examining the effects of changes in assumptions on both the economic and reported numbers. Exhibit 3.15 provides a table that identifies the effects of changes in the discount rate, expected rate of return on plan assets, and compensation (and health care cost) growth on both the reported and the economic position and cost numbers. Also, the charts on the next page reflect the distribution of three key actuarial assumptions for a large sample of companies.

Effect of Actuarial Assumption Changes on Benefit Obligation and Cost

Exhibit 3.15

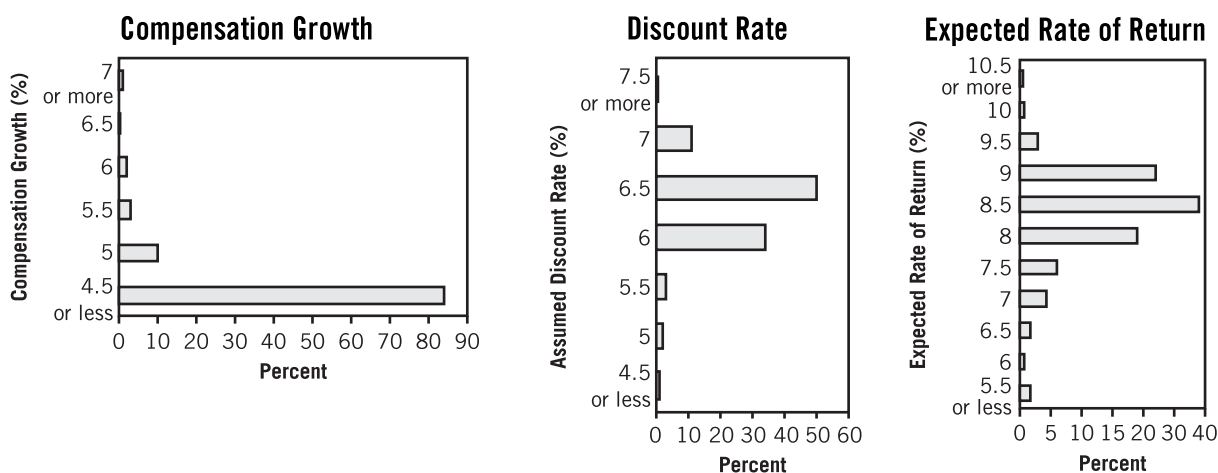


Assumption	Direction of Change	DIRECTION OF EFFECT ON		
		Funded Status	Economic Cost	Reported Cost
Discount rate	+	+	–	Indefinite
	–	–	+	Indefinite
Expected return	+	No effect	No effect	–
	–	No effect	No effect	+
Growth rate	+	–	+	+
	–	+	–	–

Note: Growth rate refers to both compensation and health care cost trend.

A crucial assumption is the discount rate. Changes in discount rate affect the magnitude of both the pension obligation and the economic benefit cost. A lower discount rate increases the benefit obligation and therefore reduces funded status on the balance sheet. A lower discount rate also increases the economic benefit cost during the year. The discount rate affects the reported benefit cost, although the direction of its impact is indefinite (this arises because an increase in discount rate decreases service cost but increases interest cost). While companies are supposed to determine the discount rate based on the prevailing interest rate for a corporate bond with similar risk (typically the long-term, AA-rated corporate bond), there is some latitude in its determination. Higher discount rates generally indicate more aggressive accounting practices. AMR has increased its discount rate to 6% in 2006 from 5.75% in 2005. This rate appears reasonable given the prevailing interest rates in the U.S. economy at that time. However, the increased discount rate would have reduced both AMR's benefit obligation and economic benefit cost during the year. Much of AMR's \$602 million actuarial gain during 2006 is attributable to this increase in discount rate.

The expected rate of return assumption affects reported benefit cost and is a favorite tool for earnings management. The expected rate of return depends on many factors, such as the composition of the plan assets and the long-term returns on different asset classes. Higher expected rates of return indicate more aggressive accounting practices because they lower the reported benefit cost and therefore increase net income. AMR assumes an expected rate of return of 8.75% in 2006, which is slightly lower than that assumed in 2005. The direction of the change is not aggressive. However, an analyst also needs to evaluate this assumption with respect to AMR's benefit plans' asset allocations. Recall that in 2006, AMR allocated 37% of its assets to bonds and 57% to equity. Given that long-term annual returns on debt and equity in the U.S. economy are, respectively, 6% and 10%, AMR's asset allocation would imply an expected return of 8.5%, which suggests that the assumed rate is a little aggressive. However, this is not out of line with the rates assumed by most companies, as the charts reveal. Also, AMR does note that its investment performance in the past has been higher than its assumed rates of return.



The growth rate assumption is probably of less concern than either the discount rate or the expected return assumptions. It tends to be more stable and predictable. Still, companies worry about changing compensation growth rates because they can affect labor negotiations.

Analysis Research



DO MANAGERS MANIPULATE PENSION ASSUMPTIONS?

Do managers manipulate pension assumptions to window-dress financial statements? Research reveals that managers strategically select (or adjust) pension assumptions to window-dress both the reported values on balance sheets and the funded status of pensions. Specifically, managers strategically select the discount rate to reduce the level of pension underfunding and, therefore, the

debt-to-equity ratio. Also, the discount rate selected is typically slightly higher than the prevailing interest rate on securities of similar risk. This suggests an attempt to understate the pension obligation. Moreover, the discount rate and health care cost trend rates on OPEBs show evidence of underreporting of the OPEB obligation. This is especially apparent in situations

where companies are close to violating debt covenants. Also, there is little relation between the expected rate of return assumption and (1) the asset composition (a higher proportion of equity should imply a higher expected rate of return) and (2) the actual fund performance. Overall, there is evidence of managerial manipulation of pension assumptions to window-dress financial statements.

Pension Risk Exposure

Pension plans can expose companies to significant risk. This risk arises to the extent to which plan assets have a different *risk profile* than the pension obligation—in particular, when changes in the market value of plan assets are not correlated with changes in the value of the pension obligation. The value of the pension obligation is sensitive to changes in the discount rate, which in turn mirrors corporate bond yields (interest rates). Therefore, changes in the pension obligation value are correlated with bond prices. Because of this, a company that invests its pension funds primarily in debt securities—such as corporate bonds—is largely protected from risk, because plan asset values will fluctuate in tandem with the value of the pension obligation. Because returns on debt are much lower than that on equity, many companies have chosen to allocate significant proportions of the plan assets to equity. Unfortunately, equity securities have different risk profiles from the pension obligation, and consequently, many companies are significantly exposed to pension risk.

Pension risk exposure became an important issue during the early 2000s in what was dubbed the “pensions crisis.” Over this period, interest rates dropped sharply, which significantly increased the value of the pension obligation. However, plan assets’ values decreased over a comparable period because of the bear market in stocks. This combination of factors resulted in a significant decrease in pension funding levels. Many companies’ pension plans became severely underfunded, which caused some companies to default on their pension promises and even file for bankruptcy protection.

Before analyzing pension risk, we need to precisely understand what it is. Technically, we can define pension risk as the probability that a company will be unable to meet its current pension obligations. Obviously, pension risk depends on the funded status of the plan; the more underfunded the plan, the higher the pension risk. However, the funded status alone provides no information about two other factors that are critical to determining a company’s pension risk: (1) *pension intensity*, that is, the size of the pension obligation (or the plan assets) in relation to the size of the company’s other assets, and (2) extent to which the risk profile of the pension assets is mismatched to that of the pension obligation. An analyst needs to assess each of these two factors when evaluating a company’s pension risk exposure.

Pension intensity can be measured by expressing the pension plan assets and the pension obligation separately as percentage of the company’s total assets. A company with large pension assets (or obligations) relative to its total assets has greater pension risk exposure because even small percentage changes in their values can have significant effects on the company’s solvency. By netting the assets with the obligation, the funded status conceals risk exposure arising from pension intensity. Because of this, some analysts argue that pension plan assets and pension obligation must be reported separately on the balance sheet.

It is more difficult to exactly measure the extent to which the risk profile of the plan assets is mismatched with that of the pension obligation. As noted earlier, a company is exposed to minimal risk if it invests its plan assets primarily in debt securities. Risk arises only when the company allocates significant proportions of its plan assets to nondebt securities such as equity or real estate. Therefore, the percentage of plan assets allocated to nondebt securities provides a good estimate of the risk arising through mismatched risk profiles.

We now evaluate the pension risk exposure of AMR Corporation. AMR’s pension plan is underfunded by \$2,483 million, which is 8.5% of its total assets. Its plan assets (pension obligation) are \$8,565 million (\$11,048 million), which translates to 29% (38%) of its total assets, suggesting fairly high pension intensity. A substantial proportion

(63%) of its plan assets are allocated to nondebt securities. Given all these factors, AMR has a high pension risk exposure.

Before concluding, we need to discuss the issue of OPEB risk exposure. Recall, there are no legal requirements to fund the OPEB obligations, so there is greater flexibility about meeting these commitments. Also, because OPEB obligations are rarely funded, the issue of matching risk profiles does not arise. However, an analyst should also evaluate both the extent of underfunding and the intensity of a company's postretirement benefit plans (i.e., pensions plus OPEBs). For AMR Corporation, the total postretirement benefit underfunding is \$5,537 million (19% of total assets) and the total benefit obligation is \$14,304 million (49% of total assets). This suggests that AMR Corporation has highly significant risk exposure from its postretirement plans.

ANALYSIS EXCERPT

Consumed by Postretirement Benefits

The most extreme example of postretirement benefit intensity is that of General Motors, which arguably has the largest corporate pension fund in the world. In 2006, GM's postretirement benefit obligation was a whopping \$176 billion, with matching plan assets of about \$130 billion, resulting in a net obligation (i.e., underfunded status) of \$46 billion. Compared to around \$200 billion in total assets and around \$10 billion in equity unrelated to postretirement benefits, GM's postretirement benefit obligation is 87.5% of its total assets and 17.5 *times* its equity! In fact, GM's funded status reduced by almost \$25 billion in 2006 because it renegotiated its OPEBs; in 2005, its net postretirement obligation was close to \$70 billion. GM's reported postretirement benefit cost of \$13.5 billion in 2006 was almost twice its operating loss of \$7.6 billion and seven times its net loss of \$1.9 billion for the year. Also, its actual return on plan assets of \$17 billion was almost twice its gross profit from automotive operations! As testimony to GM's extreme postretirement benefit intensity, its entire shareholders' equity was wiped out when it began recognizing the funded status of its plans on the balance sheet in 2006. One last fact: GM paid \$8 billion of pension benefits in 2006, which was 15 times as large as the cash dividend paid to its shareholders. As an analyst once quipped: General Motors is a giant pension plan that incidentally makes cars!

Cash Flow Implications of Postretirement Benefits

Cash flow implications of postretirement benefits are straightforward. That is, cash outflow is equal to the contribution made to the plan by the company. In 2006, AMR contributed \$500 million to its postretirement (pension + OPEB) benefit plans (see Exhibit 3.12). The current period's cash flow number is useful neither for evaluating the profitability or the financial position of a company nor for forecasting future cash flows. This is because a company will contribute to a plan only to the extent to which it is necessary. For example, AMR made pension contributions of only \$329 million in 2006, even though it paid \$605 million in benefits. Companies with overfunded plans often do not need to make any contributions—for example, General Electric has made almost no contributions to its pension plan for the past 20 years. Because of this, the current year's contributions are not very informative.

However, the postretirement benefit footnote (see Exhibit 3.12) provides information that can help an analyst forecast future cash flows related to benefit plans. AMR expects to contribute \$364 million into its pension plan and \$200 million (\$13 million contributions plus \$187 million benefit payments) toward OPEBs in 2007, which suggests a combined

LABOR PAINS

In a recent 5-year period, the Labor Dept. [www.dol.gov/dol/pwba] opened 24,523 civil and 660 criminal investigations of pension plans suspected of misusing employees' money.

cash outflow of \$564 million related to postretirement benefits. Estimating cash outflows beyond 2007 is complicated and will require modeling benefit plan assets and obligations.

ANALYSIS VIEWPOINT

... YOU ARE THE LABOR NEGOTIATOR

As the union negotiator on a labor contract, you request that management increase postretirement benefits to employees. Management responds with no increase in benefits but does offer a guarantee to fund a much larger portion of previously committed postretirement benefits. These funds would be dispensed to an independent trustee. You are confused since a large postretirement obligation already exists on the balance sheet. Does this benefit offer seem legitimate?

CONTINGENCIES AND COMMITMENTS

Contingencies

Contingencies are potential gains and losses whose resolution depends on one or more future events. Loss contingencies are potential claims on a company's resources and are known as **contingent liabilities**. Contingent liabilities can arise from litigation, threat of expropriation, collectibility of receivables, claims arising from product warranties or defects, guarantees of performance, tax assessments, self-insured risks, and catastrophic losses of property.

A loss contingency must meet two conditions before a company records it as a loss. First, it must be *probable* that an asset will be impaired or a liability incurred. Implicit in this condition is that it must be probable that a future event will confirm the loss. The second condition is the amount of loss must be *reasonably estimable*. Examples that usually meet these two conditions are losses from uncollectible receivables and the obligations related to product warranties. For these cases, both an estimated liability and a loss are recorded in the financial statements.

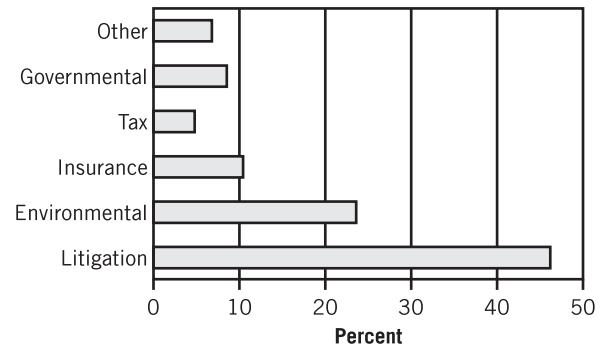
If a company does not record a loss contingency because one or both of the conditions are not met, the company must disclose the contingency in the notes when there is at least a *reasonable possibility* that it will incur a loss. Such a note reports the nature of the contingency and offers an estimate of the possible loss or range of loss—or reports that such an estimate cannot be made.

Consistent with conservatism in financial reporting, companies do not recognize gain contingencies in financial statements. They can, however, disclose gain contingencies in a note if the probability of realization is high.

Analyzing Contingent Liabilities

Reported contingent liabilities for items such as service guarantees and warranties are estimates. Our analysis of these liabilities is only as accurate as the underlying estimates, which companies often determine on the basis of prior experience or future expectations. We must exercise care in accepting management's estimates for these and other contingent liabilities. For instance, recall that Manville argued it had substantial defenses to legal claims against it due to asbestos-related lawsuits until the year it declared bankruptcy.

Frequency of Contingent Liabilities



WARRANTIES

GE recently reported \$1.3 billion in product warranty liability and \$720 million in warranty expense.

We also need to analyze note disclosures of all loss (and gain) contingencies. For example, note disclosure of indirect guarantees of indebtedness, such as advancing funds or covering fixed charges of another entity is important for our analysis. Note disclosure for contingencies typically includes:

- A description of the contingent liability and the degree of risk.
- The potential amount of the contingency and how participation of others is treated in determining risk exposure.
- The charges, if any, against income for the estimates of contingent losses.

Our analysis must recognize that companies sometimes underestimate or fail to recognize these liabilities.⁷ One example of disclosure for a contingent liability follows:

ANALYSIS EXCERPT

There are various libel and other legal actions that have arisen in the ordinary course of business and are now pending against the Company. Such actions are usually for amounts greatly in excess of the payments, if any, that may be required to be made. It is the opinion of management after reviewing such actions with counsel that the ultimate liability which might result from such actions would not have a material adverse effect on the consolidated financial statements.

—New York Times

FLYER DEBT

American Airlines estimates its 2004 year-end frequent-flyer liabilities at nearly \$1.4 billion.

Another example of a contingent liability involves frequent flyer mileage. Unredeemed frequent flyer mileage entitles airline passengers to billions of miles of free travel. Frequent flyer programs ensure customer loyalty and offer marketing benefits that are not cost-free. Because realization of these liabilities is probable and can be estimated, they must be recognized on the balance sheet and in the income statement.

Reserves for future losses are another type of contingency requiring our scrutiny. Conservatism in accounting calls for companies to recognize losses as they determine or foresee them. Still, companies tend, particularly in years of very poor performance, to overestimate their contingent losses. This behavior is referred to as a *big bath* and often includes recording losses from asset disposals, relocation, and plant closings. Overestimating these losses shifts future costs to the current period and can serve as a means for companies to manage or smooth income. Only in selected reports filed with the SEC are details of these loss estimates (also called *loss reserves*) sometimes disclosed, and even here there is no set requirement for detailed disclosure. Despite this, our analysis should attempt to obtain details of loss reserves by category and amount.

Two sources of useful information are (1) note disclosures in financial statements and (2) information in the Management's Discussion and Analysis section. Also, under the U.S. Internal Revenue Code, only a few categories of anticipated losses are tax deductible. Accordingly, a third source of information is analysis of deferred taxes. This analysis can reveal undisclosed provisions for future losses, because any undeductible losses should appear in the adjustments for deferred (prepaid) taxes. We also must remember that loss reserves do not alter risk exposure, have no cash flow consequences, and do not provide an alternative to insurance.

ECO COPS

Contingent valuation is a means of measuring environmental contingent liabilities. In this case people are surveyed and asked to assign value to environmental damage.

⁷ A study found that of 126 lawsuits lost by publicly traded companies, nearly 40% were not disclosed in years preceding the loss. The implication is that companies are reluctant to disclose pending litigation, even when the risk of loss due to litigation is high.

Cigna, a property and casualty insurer, shows us how tenuous the reserve estimation process is. In a recent year, Cigna claimed it could look back on 10 years of a very stable pattern of claims (insurance reserves are designed to provide funds for claims). However, in the very next year, the incidence and severity of claims worsened. Cigna claimed that the year was an aberration and it did not increase reserves for future claims. Yet, within two years, Cigna announced a more than \$1 billion charge to income to bring insurance reserves to proper levels with claims. Consequently, Cigna's reserves for these earlier years were obviously understated and its net income overstated.

The auditor's report gives us another perspective on contingencies. Still, auditors exhibit an inability to express an opinion on the outcome of contingencies. For example, the auditor's report for the years involving the Cigna case described above was unqualified. Another typical example, when they do comment on contingencies, is from the auditor's report of Harsco shown here:

ANALYSIS EXCERPT

The Company is subject to the Government exercising an additional option under a certain contract. If the Government exercises this option, additional losses could be incurred by the Company. Also, the Company has filed or is in the process of filing various claims against the Government relating to certain contracts. The ultimate outcome of these matters cannot presently be determined. Accordingly, no provision for such potential additional losses or recognition of possible recovery from such claims (other than relating to the Federal Excise Tax and related claims) has been reflected in the accompanying financial statements.

■ ■ ■ ■ ■ ■ ■ ■ ■ ■
DIFFERENCES

Managers and auditors often differ on whether a contingency should be recorded, disclosed, or ignored.

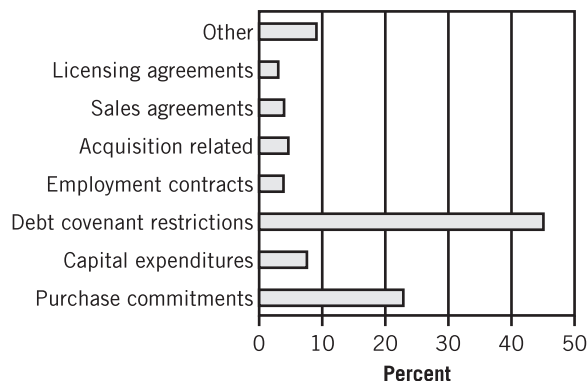
Notice the intentional ambiguity of this auditor's report.

Banks especially are exposed to large contingent losses that they often underestimate or confine to note disclosure. One common example relates to losses on international loans where evidence points to impairments of assets, but banks and their auditors fail to properly disclose the impact. Another example is off-balance-sheet commitments of banks. These include such diverse commitments as standby letters of credit, municipal bond and commercial paper guarantees, currency swaps, and foreign exchange contracts. Unlike loans, these commitments are promises banks expect (but are not certain) they will not have to bear. Banks do not effectively report these commitments in financial statements. This further increases the danger of not fully identifying risk exposures of banks.

Commitments

Commitments are potential claims against a company's resources due to future performance under contract. They are not recognized in financial statements since events such as the signing of an executory contract or issuance of a purchase order is not a completed transaction. Additional examples are long-term noncancelable contracts to purchase products or services at specified prices and purchase contracts for fixed assets

Frequency of Commitments



calling for payments during construction. An example of a commitment for Intermecc Co. is shown here:

ANALYSIS EXCERPT

The Company signed a patent license agreement with its former principal supplier of hand-held laser scanning devices. This agreement provides that the Company may manufacture and sell certain laser scanning products of its own design and that the Company pay minimum royalties and purchase minimum quantities of other products from that supplier.

A lease agreement is also, in many cases, a form of commitment.

All commitments call for disclosure of important factors surrounding their obligations including the amounts, conditions, and timing. An example of how far-reaching the commitments can be is illustrated in the following note from Wells Fargo:

ANALYSIS EXCERPT

Commitments and Contingent Liabilities. In the normal course of business, there are various commitments outstanding and contingent liabilities that are properly not reflected in the accompanying financial statements. Losses, if any, resulting from these commitments are not anticipated to be material. The approximate amounts of such commitments are summarized below (\$ in millions):

Standby letters of credit	\$ 2,400
Commercial and similar letters of credit	400
Commitments to extend credit*	17,300
Commitments to purchase futures and forward contracts	5,000
Commitments to purchase foreign and U.S. currencies	1,500

*Excludes credit card and other revolving credit loans.

Standby letters of credit include approximately \$400 million of participations purchased and are net of approximately \$300 million of participations sold. Standby letters of credit are issued to cover performance obligations, including those which back financial instruments (financial guarantees).

.....OFF-BALANCE-SHEET FINANCING

Off-balance-sheet financing refers to the nonrecording of certain financing obligations. We have already examined transactions that fit this mold (operating leases). In addition to leases, there are other off-balance-sheet financing arrangements ranging from the simple to the highly complex. These arrangements are part of an ever-changing landscape, where as one accounting requirement is brought in to better reflect the obligations from a specific off-balance-sheet financing transaction, new and innovative means are devised to take its place.

Off-Balance-Sheet Examples

One way to finance property, plant, and equipment is to have an outside party acquire them while a company agrees to use the assets and provide funds sufficient to service the debt. Examples of these arrangements are *purchase agreements* and *through-put*

agreements, where a company agrees to purchase output from or run a specified amount of goods through a processing facility, and *take-or-pay arrangements*, where a company guarantees to pay for a specified quantity of goods whether needed or not. A variation on these arrangements involves creating separate entities and then providing financing not to exceed 50% ownership—such as joint ventures or limited partnerships. Companies carry these activities as an investment and do not consolidate them with the company's financial statements. This means they are excluded from liabilities. Consider the following two practices:

ANALYSIS EXCERPT

Avis Rent-A-Car set up a separate trust to borrow money to finance the purchase of automobiles that it then leased to Avis for its rental fleet. Because the trust is separate from Avis, the debt of about \$400 million is kept off the balance sheet. The chief accounting officer proclaimed: "One of the big advantages of off-balance-sheet financing is that it permits us to make other borrowings from banks for operating capital that we could not otherwise obtain." Two major competitors, Hertz and National Car Rental, bought rather than leased their rental cars.

ANALYSIS EXCERPT

Oil companies often resort to less-than-50%-owned joint ventures as a means to raise money for building and operating pipelines. While the debt service is the ultimate responsibility of the oil company, its notes simply report that the company might have to advance funds to help the pipeline joint venture meet its debt obligations if sufficient crude oil needed to generate the necessary funds is not shipped.

Also, many retailers sell receivables arising from proprietary credit cards to trusts that they establish for this purpose. The trusts raise funds for these purchases by selling bonds which are repaid from the cash collected.

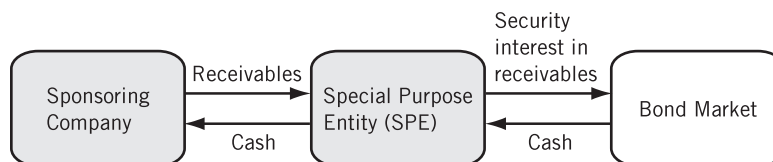
Special Purpose Entities

Special purpose entities (SPE), now made infamous in the wake of Enron's bankruptcy, have been a legitimate financing mechanism for decades and are an integral part of corporate finance today. The concept is straightforward:

- An SPE is formed by the sponsoring company and is capitalized with equity investment, some of which must be from independent third parties.
- The SPE leverages this equity investment with borrowings from the credit markets and purchases earning assets from or for the sponsoring company.
- The cash flow from the earning assets is used to repay the debt and provide a return to the equity investors.

Some examples are:

- A company sells accounts receivable to the SPE. These receivables may arise, for example, from the company's proprietary credit card that it offers its customers to attempt to ensure their future patronage (e.g., the Target credit card). The company removes the receivables from its balance sheet and receives cash that can be invested in other earning assets. The SPE collateralizes bonds that it sells in the credit markets with the receivables and uses the cash to purchase additional receivables on an ongoing basis

Exhibit 3.16**Illustration of SPE Transaction to Sell Accounts Receivable**

as the company's credit card portfolio grows. This process is called *securitization*. Consumer finance companies like Capital One are significant issuers of receivable-backed bonds. Exhibit 3.16 provides an illustration of the flow of funds in this use of SPEs.

- A company desires to construct a manufacturing facility. It executes a contract to purchase output from the plant. A SPE uses the contract and the property to collateralize bonds that it sells to finance the plant's construction. The company obtains the benefits of the manufacturing plant, but does not recognize either the asset or the liability on its balance sheet since executory contracts (commitments) are not recorded under GAAP and are also not considered derivatives that would require balance sheet recognition (see Chapter 5).

- A company desires to construct an office building, but does not want to record either the asset or the liability on its balance sheet. A SPE agrees to finance and construct the building and lease it to the company under an operating lease, called a synthetic lease. If structured properly, neither the leased asset nor the lease obligation are reflected on the company's balance sheet.

There are two primary reasons for the popularity of SPEs:

1. SPEs may provide a lower-cost financing alternative than borrowing from the credit markets directly. This is because the activities of the SPE are restricted and, as a result, investors purchase a well-secured cash flow stream that is not subject to the range of business risks inherent in providing capital directly to the sponsoring company.
2. Under present GAAP, so long as the SPE is properly structured, the SPE is accounted for as a separate entity, unconsolidated with the sponsoring company (see Chapter 5 for a discussion of consolidations). The company thus is able to use SPEs to achieve off-balance-sheet transactions to remove assets, liabilities, or both from its balance sheet. Because the company continues to realize the economic benefits of the transactions, operating performance ratios (like return on assets, asset turnover ratios, leverage ratios, and so on) improve significantly.

GAAP guidance relating to the accounting for SPEs and the rules for their consolidation with the sponsoring company is provided in *SEAS 140* and FIN 46R. At issue is defining when "control" of one entity over another is established, especially when the SPE does not issue common stock.

Many SPEs are not corporations and do not have stock ownership. For these entities, control is conferred via legal documents rather than stock ownership, and the typical 50% stock ownership threshold for consolidation does not apply. The FASB now classifies these SPEs as **variable interest entities** (VIEs) if either the total equity at risk is insufficient to finance its operations (usually less than 10% of assets) or the VIE lacks any one of the following: (1) the ability to make decisions, (2) the obligation to absorb losses, or (3) the right to receive returns. In this case, the VIE is consolidated with that entity that has the ability to make decisions, the obligation to absorb losses, and the right to

FUTURE GAAP

Regulators continue to debate the reporting standards for consolidation.

receive returns (called the “Primary Beneficiary”). Consolidation results in the adding together of the financial statements of the Primary Beneficiary and the VIE, thus eliminating any perceived benefits resulting from off-balance-sheet treatment of the VIE.

We close our discussion of SPEs with four examples of their use.

Case of Capital One. We begin with Capital One Financial Corporation, the consumer finance company with \$53.7 billion in total assets, consisting mostly of consumer loans and credit card receivables. Capital One uses SPEs in the form of trusts to purchase portions of its consumer loan portfolio. The trusts, in turn, finance the purchase by selling bonds collateralized by the receivables.

Capital One manages nearly \$80 billion in consumer loans, yet only \$38 billion is reported on its balance sheet. The other \$42 billion have been sold to the trust (SPE). In 2004, Capital One reported a net increase in reported consumer loans of \$19 billion. It also reported cash inflows of \$11 billion relating to the securitization of these loans.

Capital One is an example of a company using SPEs for a legitimate financial purpose and with full disclosure. Receivables are removed from the balance sheet only when the SPE has been properly structured with sufficient third-party equity, when Capital One has sold the assets without recourse, meaning that it is relieved of all risk of loss on the receivables, and when it has relinquished all control over the SPE (a qualifying special purpose entity). In this case, the transfer of the receivables can be recognized as a sale, with the resulting gain (loss) recognized in the income statement and the assets removed from the balance sheet.

Capital One fully discloses its off-balance-sheet financing activities so that analysts can consider their effects in the evaluation of the company’s financial condition. Excerpts from the annual report of Capital One follow.

ANALYSIS EXCERPT

Off-Balance-Sheet Securitizations. The Company actively engages in off-balance-sheet securitization transactions of loans for funding purposes. The Company receives the proceeds from third-party investors for securities issued from the Company’s securitization vehicles which are collateralized by transferred receivables from the Company’s portfolio. Securities outstanding totaling \$41.2 billion as of December 31, 2004, represent undivided interests in the pools of consumer loan receivables that are sold in underwritten offerings or in private placement transactions. The securitization of consumer loans has been a significant source of liquidity for the Company. The Company believes that it has the ability to continue to utilize off-balance-sheet securitization arrangements as a source of liquidity; however, a significant reduction or termination of the Company’s off-balance-sheet securitizations could require the Company to draw down existing liquidity and/or to obtain additional funding through the issuance of secured borrowings or unsecured debt, the raising of additional deposits or the slowing of asset growth to offset or to satisfy liquidity needs.

Off-balance-sheet securitizations involve the transfer of pools of consumer loan receivables by the Company to one or more third-party trusts or qualified special purpose entities in transactions that are accounted for as sales in accordance with SFAS 140. Certain undivided interests in the pool of consumer loan receivables are sold to investors as asset-backed securities in public underwritten offerings or private placement transactions. The proceeds from off-balance-sheet securitizations are distributed

(continued)

ANALYSIS EXCERPT (concluded)

by the trusts to the Company as consideration for the consumer loan receivables transferred. Each new off-balance-sheet securitization results in the removal of consumer loan principal receivables equal to the sold undivided interests in the pool from the Company's consolidated balance sheet ("off-balance-sheet loans"), the recognition of certain retained residual interests and a gain on the sale. The remaining undivided interests in principal receivables of the pool, as well as the unpaid billed finance charge and fee receivables related to the Company's undivided interest in the principal receivables are retained by the Company and recorded as consumer loans on the Consolidated Balance Sheet. The amounts of the remaining undivided interests fluctuate as the accountholders make principal payments and incur new charges on the selected accounts. The amount of retained consumer loan receivables was \$10.3 billion and \$8.3 billion as of December 31, 2004 and 2003, respectively.

Case of eBay. eBay constructed office facilities in San Jose, California, at a total cost of \$126.4 million in 2000. The property was owned by a separate entity, eBay Realty Trust, and leased to eBay. The structure of this transaction (called a "synthetic lease") was unique in that it allowed eBay to be the lessee of an operating lease for financial reporting purposes, but the owner of the property for federal tax purposes, thus allowing it to treat as deductions both the interest on the lease and the depreciation of the property. These synthetic leases became increasingly popular because they provided off-balance-sheet financing yet allowed the organization to retain all of the tax benefits of ownership.

eBay Realty Trust was formed with a nominal investment. It then agreed to construct a building for eBay, and to lease the property to eBay upon completion. Financing of the building came from lenders, with Chase Manhattan Bank serving as agent. The loan was secured by a mortgage on the property and an assignment of the lease. In addition, eBay agreed to place \$126.4 million in a cash collateral account and also guaranteed the owner-lessor a minimum residual amount upon termination of the lease and sale of the property.

Synthetic leases now increasingly fall under the purview of FIN 46 and these entities are now classified as VIEs, thus requiring consolidation. eBay discusses the pending effects of the adoption of FIN 46 in its 2002 10-K and the ultimate consolidation of the VIE in its 2004 10-K, excerpts of which are provided in Exhibit 3.17. Consolidation resulted in the addition of \$126.4 million of property and \$122.5 million of debt to eBay's balance sheet, together with a noncontrolling interest of \$3.9 million representing the investment by noncontrolling shareholders.

Case of Dell. Dell provides financing for the purchase of its computers in the form of loans and leases. Rather than provide this financing in-house, Dell entered into a joint venture (Dell Financial Services or DFS) with CIT, the consumer finance company, which provides the financing and splits the profit with Dell. By virtue of the joint venture agreement, Dell did not control this joint venture despite its 70% economic interest and, consequently, did not consolidate it in its financial statements. This entity was subsequently deemed to be a variable interest entity (VIE) under FIN 46R however, and, as a result, Dell is now required to consolidate DFS in its financial statements.

eBay Lease Footnotes**Exhibit 3.17**

2002 10-K: On March 1, 2000, we entered into a five-year lease for general office facilities located in San Jose, California. This five-year lease is commonly referred to as a synthetic lease because it represents a form of off-balance-sheet financing under which an unrelated third-party funds 100% of the costs of the acquisition of the property and leases the asset to us as lessee. . . . In January 2003, the Financial Accounting Standards Board, or FASB, issued FASB Interpretation No. 46, or FIN 46, "Consolidation of Variable Interest Entities." This interpretation of Accounting Research Bulletin No. 51, "Consolidated Financial Statements," addresses consolidation by business enterprises of certain variable interest entities where there is a controlling financial interest in a variable interest entity or where the variable interest entity does not have sufficient equity at risk to finance its activities without additional subordinated financial support from other parties. . . . We expect that the adoption of FIN 46 will require us to include our San Jose facilities lease and potentially certain investments in our Consolidated Financial Statements effective July 1, 2003.

2004 10-K: In accordance with the provisions of FIN 46, "Consolidation of Variable Interest Entities," we have included our San Jose corporate headquarters lease arrangement in our consolidated financial statements effective July 1, 2003. Under this accounting standard, our balance sheet at December 31, 2003 and 2004, reflects additions for land and buildings totaling \$126.4 million, lease obligations of \$122.5 million and non-controlling minority interests of \$3.9 million. Our consolidated statement of income for the year ended December 31, 2003, reflects the reclassification of lease payments on our San Jose corporate headquarters from operating expense to interest expense, beginning with quarters following our adoption of FIN 46 on July 1, 2003, a \$5.4 million after-tax charge for cumulative depreciation for periods from lease inception through June 30, 2003, and incremental depreciation expense of approximately \$400,000, net of tax, per quarter for periods after June 30, 2003. We have adopted the provisions of FIN 46 prospectively from July 1, 2003, and as a result, have not restated prior periods. The cumulative effect of the change in accounting principle arising from the adoption of FIN 46 has been reflected in net income in 2003.

Excerpts from Dell's 10-K footnote relating to Dell Financial Services are provided in Exhibit 3.18.

Interestingly, as described at the end of its footnote, Dell has renegotiated its joint venture agreement to allow it to sell finance receivables to a new "unconsolidated qualifying special purpose entity" (QSPE). QSPEs are SPEs that are structured in order to be exempt from the provisions of FIN 46R and are, therefore, not required to be consolidated. The QSPE structure requires an independent, financially solvent entity with total control over the purchased assets. The transfers are, therefore, viewed as a sale to an independent party, with a consequent removal of the assets from the balance sheet and recognition of a gain (loss) on sale. As companies begin to realize the adverse effects of consolidation under FIN 46R, many more may be establishing QSPEs as an alternative to VIEs in order to preserve off-balance-sheet treatment of the asset transfers.

Case of Enron. Our fourth example, Enron, demonstrates the misuse of special purpose entities. According to its CFO, Enron's substantial growth could not be sustained through issuing common stock because of near-term dilution and also the company could not increase its financial leverage through debt issuance for fear of jeopardizing its credit rating. As a result, the company sought to conceal massive amounts of debt and to significantly overstate its earnings with SPEs.

Enron's hedge of its investment in Rhythms NetConnections was the first of several such SPEs that the company established in order to avoid recognition of asset impairments and serves as an appropriate example of the misuse of this financial technique. Enron invested \$10 million (\$1.85 per share) in Rhythms in 1998. The

Exhibit 3.18**Financial Services—Dell**

Dell is currently a partner in DFS, a joint venture with CIT. The joint venture allows Dell to provide its customers with various financing alternatives while CIT usually provides the financing for the transaction between DFS and the customer for certain transactions. Dell recognized revenue from the sale of products pursuant to loan and lease financing transactions of \$5.6 billion, \$4.5 billion, and \$3.6 billion during fiscal 2005, 2004, and 2003, respectively.

Dell currently owns a 70% equity interest in DFS. During the third quarter of fiscal 2004, Dell began consolidating DFS's financial results due to the adoption of FIN 46R. FIN 46R provides that if an entity is the primary beneficiary of a Variable Interest Entity ("VIE"), the assets, liabilities, and results of operations of the VIE should be consolidated in the entity's financial statements. Based on the guidance in FIN 46R, Dell concluded that DFS is a VIE and Dell is the primary beneficiary of DFS's expected cash flows. Prior to consolidating DFS's financial results, Dell's investment in DFS was accounted for under the equity method because the company historically did not exercise control over DFS. Accordingly, the consolidation of DFS had no impact on Dell's net income or earnings per share. CIT's equity ownership in the net assets of DFS as of January 28, 2005, was \$13 million, which is recorded as minority interest and included in other non-current liabilities on Dell's consolidated statement of financial position. The consolidation did not alter the partnership agreement or risk sharing arrangement between Dell and CIT.

During the third quarter of fiscal 2005, Dell and CIT executed an agreement that extended the term of the joint venture to January 29, 2010 and modified certain terms of the relationship. Prior to execution of the extension agreement, CIT provided all of the financing for transactions between DFS and the customer. The extension agreement also gives Dell the right, but not the obligation, to participate in such financings beginning in the fourth quarter of fiscal 2005. During the fourth quarter of fiscal 2005, Dell began selling certain loan and lease finance receivables to an unconsolidated qualifying special purpose entity that is wholly owned by Dell. The qualifying special purpose entity is a separate legal entity with assets and liabilities separate from those of Dell. The qualifying special purpose entity has entered into a financing arrangement with a multiseller conduit that in turn issues asset-backed debt securities to the capital markets. Transfers of financing receivables are recorded in accordance with the provisions of SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishment of Liabilities*. The sale of these loan and lease financing receivables did not have a material impact on Dell's consolidated financial position, results of operations, or cash flows for fiscal 2005.

following year, Rhythms went public. Enron was prohibited from selling its investment due to a prior agreement and wished to shelter its \$300 million unrealized gain from potential loss.

Although the transaction is quite complicated, in essence, Enron formed an SPE and capitalized it with its own stock, covered by forward contracts to preserve the value of its investment from potential decline. The SPE, in turn, acted as the counterparty (an insurance company) to hedge Enron's investment in Rhythms and to protect the company from a possible decline in its value. If the investment declined in value, Enron, theoretically, would be able to call on the guaranty issued by the SPE to make up the loss.

If this transaction was conducted with a third party with sufficient equity of its own, Enron would have effectively hedged its investment and would not be required to report a loss if the investment declined in value. As structured, however, the SPE had no outside equity of its own and its assets consisted solely of Enron stock. The hedge was a sham. Furthermore, Enron took the position that these SPEs did not need to be consolidated in its annual report. This meant that any liabilities of the SPE would not be reflected on Enron's consolidated balance sheet.

Consolidation rules require that the SPEs be truly independent in order to avoid consolidation. That means that they should be capitalized with outside equity and effective control should remain with outside parties. Enron violated both of these

PARTNER PROBLEMS

Investment banks including CFSB and Merrill Lynch earned tens of millions of dollars helping Enron shield billions of dollars in debt by selling the company's off-balance-sheet partnerships to institutional investors.

requirements. First, in many cases Enron guaranteed the investment of its “outside” investors. That meant that the investors did not have the required risk of loss. And second, the management of the SPEs was often Enron employees with outside investors not serving in a management capacity. In the restatement of its 1997–2000 financial statements in the third quarter of 2001, Enron consolidated the SPEs. The effect was to recognize on-balance-sheet hundreds of millions of dollars of debt, to record asset impairments of approximately \$1 billion, and to reduce stockholders’ equity by \$1.2 billion. The restatement eroded investor confidence and triggered violations of debt covenants that ultimately resulted in the bankruptcy of the company.

How much could investors have learned about these SPE activities from Enron’s annual report? Exhibit 3.19 contains an excerpt from Enron’s 2000 annual report, the year before its bankruptcy. The only mention of the SPEs was in a related party footnote. Enron described the hedging of its investment (merchant) portfolio and revealed that the SPEs had been capitalized with Enron common stock. It also disclosed that the managing partner of the SPE was an executive of Enron and highlighted the disclosures in a separate “Related Party” footnote. In hindsight, the disclosures proved more significant than they first appeared. Analysts are now paying much more attention to these details following the billions of dollars of losses that resulted from Enron’s collapse.

Enron Related Party Transactions Footnote

Exhibit 3.19

In 2000 and 1999, Enron entered into transactions with limited partnerships (the Related Party) whose general partner’s managing member is a senior officer of Enron. The limited partners of the Related Party are unrelated to Enron. Management believes that the terms of the transactions with the Related Party were reasonable compared to those which could have been negotiated with unrelated third parties.

In 2000, Enron entered into transactions with the Related Party to hedge certain merchant investments and other assets. As part of the transactions, Enron (i) contributed to newly-formed entities (the Entities) assets valued at approximately \$1.2 billion, including \$150 million in Enron notes payable, 3.7 million restricted shares of outstanding Enron common stock and the right to receive up to 18.0 million shares of outstanding Enron common stock in March 2003 (subject to certain conditions) and (ii) transferred to the Entities assets valued at approximately \$309 million, including a \$50 million note payable and an investment in an entity that indirectly holds warrants convertible into common stock of an Enron equity method investee. In return, Enron received economic interests in the Entities, \$309 million in notes receivable, of which \$259 million is recorded at Enron’s carryover basis of zero, and a special distribution from the Entities in the form of \$1.2 billion in notes receivable, subject to changes in the principal for amounts payable by Enron in connection with the execution of additional derivative instruments. Cash in these Entities of \$172.6 million is invested in Enron demand notes. In addition, Enron paid \$123 million to purchase share-settled options from the Entities on 21.7 million shares of Enron common stock. The Entities paid Enron \$10.7 million to terminate the share-settled options on 14.6 million shares of Enron common stock outstanding. In late 2000, Enron entered into share-settled collar arrangements with the entities on 15.4 million shares of Enron common stock. Such arrangements will be accounted for as equity transactions when settled.

In 2000, Enron entered into derivative transactions with the Entities with a combined notional amount of approximately \$2.1 billion to hedge certain merchant investments and other assets. Enron’s notes receivable balance was reduced by \$36 million as a result of premiums owed on derivative transactions. Enron recognized revenues of approximately \$500 million related to the subsequent change in the market value of these derivatives, which offset market value changes of certain merchant investments and price risk management activities. In addition, Enron recognized \$44.5 million and \$14.1 million of interest income and interest expense, respectively, on the notes receivable from and payable to the Entities.

.....SHAREHOLDERS' EQUITY

Equity refers to owner (shareholder) financing of a company. It is viewed as reflecting the claims of owners on the net assets of the company. Holders of equity securities are typically subordinate to creditors, meaning that creditors' claims are settled first. Also, typically variation exists across equity holders on seniority for claims on net assets. Equity holders are exposed to the maximum risk associated with a company. At the same time, they have the maximum return possibilities as they are entitled to all returns once creditors are covered.

Our analysis of equity must take into account several measurement and reporting standards for shareholders' equity. Such analysis would include:

- Classifying and distinguishing among major sources of equity financing.
- Examining rights for classes of shareholders and their priorities in liquidation.
- Evaluating legal restrictions for distribution of equity.
- Reviewing contractual, legal, and other restrictions on distribution of retained earnings.
- Assessing terms and provisions of convertible securities, stock options, and other arrangements involving potential issuance of shares.

It is important for us to distinguish between liability and equity instruments given their differences in risks and returns. This is especially crucial when financial instruments have characteristics of both. Some of the more difficult questions we must confront are:

- Is a financial instrument such as mandatory redeemable preferred stock or a put option on a company's common stock—obligating a company to redeem it at a specified amount—a liability or equity instrument?
- Is a financial instrument such as a stock purchase warrant or an employee stock option—obligating a company to issue its stock at specified amounts—a liability or equity instrument?
- Is a right to issue or repurchase a company's stock at specified amounts an asset or equity instrument?
- Is a financial instrument having features of both liabilities and equity sufficiently different from both to warrant separate presentation? If yes, what are the criteria for this presentation?

The following sections help us answer these and other issues confronting our analysis of financial statements. We will return to these questions at other points in the book to further describe the analysis implications. This section first considers capital stock and then retained earnings—the two major components of equity.

Capital Stock

Reporting of Capital Stock

Reporting of capital stock includes an explanation of changes in the number of capital shares. This information is disclosed in the financial statements or related notes. The following partial list shows reasons for changes in capital stock, separated according to increases and decreases.

Sources of increases in capital stock outstanding:

- Issuances of stock.
- Conversion of debentures and preferred stock.
- Issuances pursuant to stock dividends and splits.
- Issuances of stock in acquisitions and mergers.
- Issuances pursuant to stock options and warrants exercised.

GLOBAL

Countries vary in preference given to creditors vs. shareholders; for example, Germany, France, and Japan historically give preference to shareholders.

MERGER-DADDY

The biggest-ever merger was America Online Inc.'s \$166 billion, all-stock bid for Time Warner, Inc. AOL-Time Warner subsequently wrote off over \$93 billion of goodwill recognized in the merger.

Sources of decreases in capital stock outstanding:

- Purchases and retirements of stock.
- Stock buybacks.
- Reverse stock splits.

Another important aspect of our analysis of capital stock is the evaluation of the options held by others that, when exercised, cause the number of shares outstanding to increase and thus dilute ownership. These options include:

- Conversion rights of debentures and preferred stock into common.
- Warrants entitling holders to exchange them for stock under specified conditions.
- Stock options with compensation and bonus plans calling for issuances of capital stock over a period of time at fixed prices—examples are qualified stock option plans and employee stock ownership plans.
- Commitments to issue capital stock—an example is merger agreements calling for additional consideration contingent on the occurrence of an event such as achieving a specific earnings level.

The importance of analyzing these disclosures is to alert us to the potential increase in the number of shares outstanding. The extent of dilution in earnings and book value per share depends on factors like the amount received or other rights given up when converting securities. We must recognize that dilution is a real cost for a company—a cost that is given little formal recognition in financial statements. We examine the impact of dilution on earnings per share in the appendix to Chapter 6.

Contributed Capital. **Contributed (or paid-in) capital** is the total financing received from shareholders in return for capital shares. Contributed capital is usually divided into two parts. One part is assigned to the par or stated value of capital shares: **common** and/or **preferred stock** (if stock is no-par, then it is assigned the total financing). The remainder is reported as **contributed (or paid-in) capital in excess of par or stated value** (also called *additional paid-in capital*). When combined, these accounts reflect the amounts paid in by shareholders for financing business activities. Other accounts in the contributed capital section of shareholders' equity arise from charges or credits from a variety of capital transactions, including (1) sale of treasury stock; (2) capital changes arising from business combinations; (3) capital donations, often shown separately as donated capital; (4) stock issuance costs and merger expenses; and (5) capitalization of retained earnings by means of stock dividends.

Treasury Stock. **Treasury stock** (or *buybacks*) are the shares of a company's stock reacquired after having been previously issued and fully paid for. Acquisition of treasury stock by a company reduces both assets and shareholders' equity. Consistent with this transaction, treasury stock is not an asset, it is a *contra-equity account* (negative equity). Treasury stock is typically recorded at *cost*, and the most common method of presentation is to deduct treasury stock cost from the total of shareholders' equity. When companies record treasury stock at par, they typically report it as a contra to (reduction of) its related class of stock.

Classification of Capital Stock

Capital stock are shares issued to equity holders in return for assets and services. There are two basic types of capital stock: preferred and common. There also are a number of different variations within each of these two classes of stock.

**MERGER DISCLOSURE**

New accounting rules require companies to explain in more detail why they are making an acquisition. They must tell what assets, including intangible ones such as goodwill and patents, they are getting for their money.

Preferred Stock. **Preferred stock** is a special class of stock possessing preferences or features not enjoyed by common stock. The more typical features attached to preferred stock include:

- Dividend distribution preferences including participating and cumulative features.
- Liquidation priorities—especially important since the discrepancy between par and liquidation value of preferred stock can be substantial. For example, Johnson Controls issued preferred stock with a par value of \$1 and a liquidation value of \$51.20.
- Convertibility (redemption) into common stock—the SEC requires separate presentation of these shares when preferred stock possesses characteristics of debt (such as redemption requirements).
- Nonvoting rights—which can change with changes in items such as arrearages in dividends.
- Call provisions—usually protecting preferred shareholders against premature redemption (call premiums often decrease over time).

While preferred shareholders are usually senior to common shareholders, the preferred shareholders' rights to dividends are usually fixed. Yet, their dividend rights can be cumulative, meaning they are entitled to arrearages (prior years) of dividends before common shareholders receive any dividends.

Among preferred stock classes, we find a variety of preferences relating to dividend and liquidation rights. These features, and the fixed nature of their dividends, often give preferred stock the appearance of liabilities. An important distinction between preferred shareholders and creditors is that preferred stockholders are typically not entitled to demand redemption of their shares. Nevertheless, some preferred stocks possess set redemption dates that can include sinking funds—funds accumulated for expected repayment. Characteristics of preferred stock that would make them more akin to common stock include dividend participation rights, voting rights, and rights of conversion into common stock. Preferred stock often has a par value, but it need not be the amount at which it was originally issued.

Common Stock. **Common stock** is a class of stock representing ownership interest and bearing ultimate risks and rewards of company performance. Common stock represents **residual interests**—having no preference, but reaping residual net income and absorbing net losses. Common stock can carry a par value; if not, it is usually assigned a stated value. The par value of common stock is a matter of legal and historical significance—it usually is unimportant for modern financial statement analysis.

There is sometimes more than one class of common stock for major companies. The distinctions between common stock classes typically are differences in dividend, voting, or other rights.

Analyzing Capital Stock

Items that constitute shareholders' equity usually do not have a marked effect on income determination and, as a consequence, do not seriously impact analysis of income. The more relevant information for analysis relates to the composition of capital accounts and to their applicable restrictions. Composition of equity is important because of provisions that can affect residual rights of common shares and, accordingly, the rights, risks, and returns of equity investors. Such provisions include dividend participation rights, conversion rights, and a variety of options and conditions that characterize complex securities frequently issued under merger agreements—most of which dilute common equity. It is important that we reconstruct and explain changes in these capital accounts.

ANALYSIS VIEWPOINT**. . . YOU ARE THE MONEY MANAGER**

You are searching for an investment opportunity. You narrow your search to a company with two different securities: common stock and 10% preferred stock. The returns for both securities (including dividends and price appreciation) in the past few years are consistently around 10%. In which security do you invest?

Retained Earnings

Retained earnings are the earned capital of a company. The retained earnings account reflects the accumulation of undistributed earnings or losses of a company since its inception. This contrasts with the capital stock and additional paid-in capital accounts that constitute capital contributed by shareholders. Retained earnings are the primary source of dividend distributions to shareholders. While some states permit distributions to shareholders from additional paid-in capital, these distributions represent capital (not earnings) distributions.

Cash and Stock Dividends

A **cash dividend** is a distribution of cash to shareholders. It is the most common form of dividend and, once declared, is a liability of a company. Another form of dividend is the *dividend in kind*, or property dividend. These dividends are payable in the assets of a company, in goods, or in the stock of another corporation. Such dividends are valued at the market value of the assets distributed.

ANALYSIS EXCERPT

Ranchers Exploration and Development Corp. distributed a dividend in kind using gold bars. Also, Dresser Industries paid a dividend in kind with “a distribution of one INDRESCO share for every five shares of the Company’s common stock.”

A **stock dividend** is a distribution of a company’s own shares to shareholders on a pro rata basis. It represents, in effect, a permanent capitalization of earnings. Shareholders receive additional shares in return for reallocation of retained earnings to capital accounts. Accounting for *small* (or *ordinary*) *stock dividends*, typically less than 20% to 25% of shares outstanding, requires the stock dividend be valued at its market value on the date of declaration. *Large stock dividends* (or “split-ups effected in the form of a dividend”), typically exceeding 25% of shares outstanding, require that the stock dividend be valued at the par value of shares issued. We must not be misled into attaching substantive value to stock dividends. Companies sometimes encourage such inferences for their own self-interests as shown here:

ANALYSIS EXCERPT

Wickes Companies announced a stock dividend “in lieu of the quarterly cash dividend.” Its management asserted this stock “dividend continues Wickes’ 88-year record of uninterrupted dividend payments.”

Restrictions on Retained Earnings

Retained earnings can be restricted as to the payment of dividends as a result of contractual agreements, such as loan covenants, or by action of the board of directors. **Restrictions (or covenants) on retained earnings** are constraints or requirements on the retention of a certain retained earnings amount. An important restriction involves limitations on a company's distribution of dividends. Bond indentures and loan agreements are typical sources of these limitations. **Appropriations of retained earnings** are reclassifications of retained earnings for specific purposes. Through management action, and with board of director approval in compliance with legal requirements, companies can appropriate retained earnings. Appropriations of retained earnings recognize that the company does not intend to distribute these amounts as dividends, but rather to reserve them for a specific purpose. Neither of these restrictions sets aside cash. They only serve to notify investors that the future payment of dividends is restricted in some manner.

Spin-Offs and Split-Offs

Companies often divest subsidiaries, either in an outright sale or as a distribution to shareholders. The sale of a subsidiary is accounted for just like the sale of any other asset: a gain (loss) on the sale is recognized for the difference between the consideration received and the book value of the subsidiary investment. Distributions of subsidiary stock to shareholders can take one of two forms:

Spin-off, the distribution of subsidiary stock to shareholders as a dividend; assets (investment in subsidiary) are reduced as is retained earnings.

Split-off, the exchange of subsidiary stock owned by the company for shares in the company owned by the shareholders; assets (investment in subsidiary) are reduced and the stock received from the shareholders is treated as treasury stock.

If these transactions affect shareholders on a pro rata basis (equally), the investment in the subsidiary is distributed at book value. For non-pro rata distributions, the investment is first written up to market value, resulting in a gain on the distribution, and the market value of the investment is distributed to shareholders.

To illustrate, AT&T split off the Wireless subsidiary as a separate company via an exchange of the wireless subsidiary stock owned by AT&T for shares in AT&T owned by its shareholders. Since the exchange was a non-pro rata distribution, the shares were written up to market value prior to the exchange, resulting in a gain of \$13.5 billion as reported below:

ANALYSIS EXCERPT

On July 9, 2001, AT&T completed the split-off of AT&T Wireless as a separate, independently traded company. All AT&T Wireless Group tracking stock was converted into AT&T Wireless common stock on a one-for-one basis, and 1.136 million shares of AT&T Wireless common stock held by AT&T were distributed to AT&T common shareowners on a basis of 1.609 shares of AT&T Wireless for each AT&T share outstanding. AT&T common shareowners received whole shares of AT&T Wireless common stock and cash payments for fractional shares. The IRS ruled that the transaction qualified as tax-free for AT&T and its shareowners for U.S. federal income tax purposes, with the exception of cash received for fractional shares. The split-off of AT&T Wireless resulted in a tax-free noncash gain on disposition of discontinued operations of \$13.5 billion, which represented the difference between the fair value of the AT&T Wireless tracking stock at the date of the split-off and AT&T's book value of AT&T Wireless.

AT&T next spun off its Broadband subsidiary in connection with its acquisition by Comcast. The spin-off was effected as a non-pro rata distribution to shareholders and, consequently, was recorded at fair market value, resulting in a gain of \$1.3 billion as reported here:

ANALYSIS EXCERPT

On November 18, 2002, AT&T spun-off AT&T Broadband, which was comprised primarily of the AT&T Broadband segment, to AT&T shareowners. The Internal Revenue Service (IRS) ruled that the transaction qualified as tax-free for AT&T and our shareowners for U.S. federal income tax purposes, with the exception of cash received for fractional shares. In connection with the non-pro rata spin-off of AT&T Broadband, AT&T wrote up the net assets of AT&T Broadband to fair value. This resulted in a non-cash gain on disposition of \$1.3 billion, which represented the difference between the fair value of the AT&T Broadband business at the date of the spin-off and AT&T's book value of AT&T Broadband, net of certain charges triggered by the spin-off and their related income tax effect. These charges included compensation expense due to accelerated vesting of stock options, as well as the enhancement of certain incentive plans.

In both of these cases, the transactions with AT&T shareholders were non-pro rata, meaning that different groups of AT&T shareholders were treated differently. Had these transactions been effected on a pro rata basis (all shareholders receiving their pro rata share of the distribution), the subsidiary stock would have been distributed at book value and no gain would have been recognized. Our analysis must be cognizant of these noncash, transitory gains when evaluating income.

Prior Period Adjustments

Prior period adjustments are mainly corrections for errors in prior periods' financial statements. Companies exclude them from the income statement and report them as an adjustment (net of tax) to the beginning balance of retained earnings.

ANALYSIS VIEWPOINT

... YOU ARE THE SHAREHOLDER

You own common stock in a company. This company's stock price doubled in the past 12 months, and it is currently selling at \$66. Today, the company announces a 3-for-1 "stock split effected in the form of a dividend." How do you interpret this announcement?

Book Value per Share

Computation of Book Value per Share

Book value per share is the per share amount resulting from a company's liquidation at amounts reported on its balance sheet. *Book value* is conventional terminology referring to net asset value—that is, total assets reduced by claims against them. The *book value of common stock* is equal to the total assets less liabilities and claims of securities senior to common stock (such as preferred stock) at amounts reported on the balance sheet (but can also include unbooked claims of senior securities). A simple means of computing book value is to add up the common stock equity accounts and reduce this

total by any senior claims not reflected in the balance sheet (including preferred stock dividend arrearages, liquidation premiums, or other asset preferences to which preferred shares are entitled).

The shareholders' equity section of Kimberly Corp. for periods ending in Years 4 and 5 is reproduced here as an example of the measurement of book value per share:

	Year 5	Year 4
Preferred stock, 7% cumulative, par value \$100 (authorized 4,000,000 shares; outstanding 3,602,811 shares)	\$ 360,281,100	\$ 360,281,100
Common stock, par value \$16.67 (authorized 90,000,000 shares; outstanding 54,138,137 shares at December 31, Year 5, and 54,129,987 shares at December 31, Year 4).....	902,302,283	902,166,450
Retained earnings.....	2,362,279,244	2,220,298,288
Total shareholder's equity	<u>\$3,624,862,627</u>	<u>\$3,482,745,838</u>

Note: Preferred stock is nonparticipating and callable at 105. Dividends for Year 5 are in arrears.

Our calculation of book value per share for both common and preferred stock at the end of Year 5 follows:

	Preferred	Common	Total
Preferred stock* (at \$100 par)	\$360,281,100		\$ 360,281,100
Dividends in arrears (7%).....	25,219,677		25,219,677
Common stock.....		\$ 902,302,283	902,302,283
Retained earnings (net of amount attributed to dividend in arrears)		2,337,059,567	2,337,059,567
Total	<u>\$385,500,777</u>	<u>\$3,239,361,850</u>	<u>\$3,624,862,627</u>
Divided by number of shares outstanding.....	<u>3,602,811</u>	<u>54,138,137</u>	
Book value per share.....	<u>\$107.00</u>	<u>\$59.84</u>	

**The call premium does not normally enter into computation of book value per share because the call provision is at the option of the company.*

Relevance of Book Value per Share

Book value plays an important role in analysis of financial statements. Applications can include the following:

- Book value, with potential adjustments, is frequently used in assessing merger terms.
- Analysis of companies composed of mainly liquid assets (finance, investment, insurance, and banking institutions) relies extensively on book values.
- Analysis of high-grade bonds and preferred stock attaches considerable importance to asset coverage.

These applications must recognize the accounting considerations entering into the computation of book value per share such as the following:

- Carrying values of assets, particularly long-lived assets like property, plant, and equipment, are usually reported at cost and can markedly differ from market values.
- Internally generated intangible assets often are not reflected in book value, nor are contingent assets with a reasonable probability of occurrence.

Also, other adjustments often are necessary. For example, if preferred stock has characteristics of debt, it is appropriate to treat it as debt at the prevailing interest rate. In short, book value is a valuable analytical tool, but we must apply it with discrimination and understanding.

Liabilities at the “Edge” of Equity

This section describes two items straddling liabilities and equity—redeemable preferred stock and minority interest.

Redeemable Preferred Stock

Analysts must be alert for equity securities (typically preferred stock) that possess mandatory redemption provisions making them more akin to debt than equity. These securities require a company to pay funds at specific dates. A true equity security does not impose such requirements. Examples of these securities, under the guise of preferred stock, exist for many companies. Tenneco’s annual report refers to its preferred stock redemption provision as follows:

ANALYSIS EXCERPT

The aggregate maturities applicable to preferred stock issues outstanding at December 31, 2001, are none for 2002, \$10 million for 2003, and \$23 million for each of 2004, 2005, and 2006.

The SEC asserts that redeemable preferred stocks are different from conventional equity capital and should *not* be included in shareholders’ equity nor combined with nonredeemable equity securities. The SEC also requires disclosure of redemption terms and five-year maturity data. Accounting standards require disclosure of redemption requirements of redeemable stock for each of the five years subsequent to the balance sheet date. Companies whose shares are not publicly traded are not subject to SEC requirements and can continue to report redeemable preferred stock as equity. Still, our analysis should treat them for what they are—an obligation to pay cash at a future date.

..... APPENDIX 3A: LEASE ACCOUNTING AND ANALYSIS—LESSOR

Many manufacturing companies lease their products rather than sell them outright. Examples are IBM and Caterpillar. Other companies, like General Electric, act as financial intermediaries, purchasing the assets from manufacturers and leasing them to the ultimate user. Leasing has become an important ingredient in the sales of products and is now also a significant factor in the analysis of financial statements. This appendix briefly describes the accounting and analysis of leases from the perspective of a lessor. The accounting for leases by the lessor is similar to that for lessees. With minor exceptions, the lessor categorizes the lease as operating or capital to parallel the classification by the lessee. If classified as an operating lease, the leased asset remains on the lessor’s balance sheet, and the rent payments are treated as income when received. The lessor continues to record depreciation expense on the leased asset. The difference between the rent income and the depreciation expense is the lessor’s profit on the lease.

If the lease is classified as capital, the lessor removes the leased asset from its balance sheet and records a receivable equal to the sum of the expected minimum lease payments. The difference between the receivable and the asset removed from the balance sheet is classified as a liability, unearned income, which is reduced and recorded as earned income periodically over the life of the lease. Two types of leases are important from the lessor's point of view:

1. **Sales-type lease.** In this case, the cost of the leased asset is different from its fair market value at the date it is leased. This situation might arise, for example, with a company like IBM that manufactures computers and leases them to its customers. In this case, accountants take the view that the asset has been sold and IBM has entered into a subsequent financing transaction with the lessee. As a result, IBM records a sale, cost of goods sold, and gross profit at the time the lease is executed. IBM, therefore, records gross profit upon the lease of the computer and lease revenue over the life of the lease equal to its unearned revenue when the lease is signed. Furthermore, since the leased asset has been removed from the balance sheet, IBM no longer records depreciation expense.
2. **Direct financing lease.** Companies like General Electric Capital Corporation engage in direct financing leases. In this case, GECC is acting like a bank. It purchases the asset from the manufacturer and leases it directly to the customer. In this case, the value of the lease (present value of the lease payments receivable) is equal to the cost of the asset purchased and no sale or gross profit is recorded. Instead, GECC recognizes lease income gradually over the life of the lease.

ANALYSIS IMPLICATIONS

The analysis implications of leasing are similar to those involving any extension of credit. Be aware of the risks inherent in any extension of credit. An analysis of the adequacy of the reserve for uncollectible lease receivables in comparison with the loss experience of the lessor is required. And second, recognize that lease receivables will be collected over a period of years and compare the average life of the lease portfolio with that of the company's liabilities. That is, it is inappropriate to finance fixed-rate leases of intermediate duration with short-term floating rate debt.

Lessors often package service contracts with leases to gain additional revenue. Under GAAP, income from the service contract must be recognized ratably over the life of the contract. In an effort to boost current period sales and profits, companies have attempted to accelerate the revenue recognition from service contracts by recording relatively more of the initial contract in the lease itself, thus increasing sales and gross profit and reducing the future payments under the service contract. Xerox is a company challenged by the SEC for this practice. Analysts must be aware of this possibility and examine carefully the relative components of lease income and service revenue mix in the company's total sales.

SALE - LEASEBACK

A **sale-leaseback** transaction involves the sale of an owned asset and execution of a lease on the same asset. Companies often use sale-leasebacks to free up cash from existing assets, primarily real estate. Generally, any profit realized on the value of the asset sold must be deferred and recognized over the life of the lease as a reduction of lease expense.

.....APPENDIX 3B: ACCOUNTING SPECIFICS FOR POSTRETIREMENT BENEFITS

ECONOMICS OF PENSION ACCOUNTING

In this section, we examine the economics underlying accounting for defined benefit pension plans. The following example is used to illustrate the discussion:

- Consider a pension plan with a single employee, J. Smith, who joined the plan exactly five years ago on January 1, 2001. Smith is due to retire on December 31, 2025, and is expected to live for 10 years after retirement.
- J. Smith's current compensation is \$10,000 per annum. Actuarial estimates indicate that compensation is expected to increase by 4% per annum over the next 20 years.
- The pension plan specifies the following formula for determining the employee's pension benefit: "The annual pension is equal to one week's compensation at the time of retirement multiplied by the number of years worked under the plan." Employees vest four years after joining the plan.
- At December 31, 2005, the fair value of assets in the pension fund is \$2,000. In 2006, the employer contributes \$200 to the pension fund.
- Return on pension assets is 22% in 2006. The long-term return is expected to be 10% per annum.
- Discount rate is 7% per annum.

Pension Obligation

Exhibit 3B.1 explains the computation of the pension obligation, under alternative assumptions, for the J. Smith example. We first determine the pension obligation as of December 31, 2005. This computation is explained in the two columns headed "2005 Formula." We describe two alternative definitions for the pension obligation:

Determining Pension Obligations under Different Assumptions—J. Smith Example

Exhibit 3B.1

	2005 FORMULA		2006 FORMULA		
	Actual	Projected	Projected	ASSUMPTION CHANGE	
				Actuarial	Plan
At December 31, 2025 (Retirement)					
Salary per year.....	\$10,000	\$21,911	\$21,911	\$26,533	\$26,533
Pension per year	962	2,107	2,528	3,061	4,592
Present value of pension.....	6,753	14,798	17,757	21,503	32,254
At December 31, 2005					
Present value of pension.....	1,745	3,824			
At December 31, 2006					
Present value of pension.....		4,091	4,910	5,946	8,919

1. **Accumulated benefit obligation (ABO)** is the actuarial present value of the future pension benefits payable to employees at retirement based on their *current* compensation and service to date. (The term *actuarial* signifies it is based on assumptions such as life expectancy and employee turnover.) This present value is equivalent to an employer's current obligation if the plan is discontinued immediately. The computation of ABO for the J. Smith example is illustrated in the column headed "Actual" in Exhibit 3B.1. Because J. Smith has been with the plan for five years, the annual pension benefit, given current compensation, is \$962 ($5/52 \times \$10,000$). This pension benefit can be viewed as a fixed annuity of \$962 per annum for 10 years. Given a discount rate of 7% per annum, the value of these pension benefits at retirement is \$6,753 [7.0236 (from interest tables) \times \$962]. This means the entire stream of future pension benefits is represented by a single lump sum payment of \$6,753 on December 31, 2025. The present value of this amount as of the end of 2005, or \$1,745 [computed as $\$6,753 \times 0.2584$ (from interest tables)], is the accumulated benefit obligation (ABO).
2. **Projected benefit obligation (PBO)** is the actuarial estimate of future pension benefits payable to employees on retirement based on *expected future* compensation and service to date. This estimate is a more realistic estimate of the pension obligation. In our example, J. Smith's salary is expected to increase by 4% per annum. The computation of PBO for the J. Smith example is shown in the column headed "Projected" in Exhibit 3B.1. The PBO at December 31, 2005, is \$3,824. The only difference between the ABO and PBO is that we consider the expected salary at retirement (\$21,911) instead of Smith's current salary (\$10,000) when determining periodic pension payment. Expected salary is estimated using the annual compensation growth of 4% [computed as $\$10,000 \times (1.04)^{20}$]. By using current salary, the ABO would understate the pension obligation.

Pension Assets and Funded Status

The market value of plan assets at December 31, 2005, in the J. Smith example is given as \$2,000. While the assets' value exceeds the ABO, it is lower than the PBO. The difference between the value of the plan assets and the PBO is called the **funded status** of the plan, which represents its net economic position. A plan is said to be *overfunded* when the value of pension assets exceeds the PBO. It is *underfunded* when the value of pension assets is less than the PBO. The J. Smith plan is underfunded by \$1,824 ($\$3,824 - \$2,000$).

There are various reasons for overfunding, including tax-free accumulation of funds, outstanding company performance, or better-than-expected fund investment performance. Company raiders sometimes consider overfunded pension plans as sources of funds to help finance their acquisitions. The implications of overfunded pension plans include:

- Companies can discontinue or reduce contributions to the pension fund until pension assets equal or fall below the PBO. Reduced or discontinued contributions have income statement and cash flow implications.
- Companies can withdraw excess assets. Recaptured amounts are subject to income taxes. Since companies often use pension funding as a tax shelter, reversion excise taxes are often imposed.

There also are reasons for underfunding, including poor investment performance, changes in pension rules such as granting of retroactive benefits, and inadequate contributions by the employer. However, employers are subject to certain minimum funding requirements by law.

Pension Cost

Economic pension cost (or expense) is the net cost arising from changes in net economic position (or funded status) for the period.⁸ Economic pension cost includes both recurring (or normal) and nonrecurring (or abnormal) components. Any return on pension plan assets is used to offset these costs in arriving at a net economic pension cost.

Recurring pension cost consists of two components:

1. **Service cost** is the actuarial present value of the pension benefit earned by employees based on the pension benefit formula. It is the increase in the projected benefit obligation that arises when employees work another period. Service cost arises only for plans where the pension amount is based on periods of service.
2. **Interest cost** is the increase in the projected benefit obligation that arises when the pension payments are one period closer to being made. This cost arises because the PBO is the present value of the future pension benefits, which increases over time due to the *time value of money*. Interest cost is computed by multiplying beginning-period PBO by the discount rate.

These recurring costs can be explained by returning to the J. Smith example. See the column headed “Projected” under the main heading “2006 Formula” in Exhibit 3B.1. The PBO at the end of 2006 is \$4,910—an increase of \$1,086 from 2005 (recall PBO in 2005 was \$3,824). What drives this increase? There are two factors. First, while Smith’s compensation is unchanged, the pension benefit per year increases in 2006 (from \$2,107 to \$2,528). This increase occurs because Smith’s pension in 2006, as per the formula, is based on six weeks’ compensation rather than on five weeks’ compensation (as in 2005). The effect of this change is determined by comparing the present values of pension benefits at December 31, 2006, using the 2005 formula versus the 2006 formula. Specifically, the present value using the 2005 formula is \$4,091, which is \$819 lower than the present value using the 2006 formula. This means the PBO increases by \$819 in 2006 because Smith serves an additional year—hence, the term *service cost*. Next, compare the present values using the 2005 formula at the end of 2005 and 2006. The present values of identical future benefits—represented by the identical lump sum of \$14,798 at the end of 2025—increases from \$3,824 in 2005 to \$4,091 in 2006. This \$267 increase is because of the time value of money; hence, the term *interest cost* (interest cost also is computed as $7\% \times \$3,824$).

Nonrecurring pension cost, arising from events such as changes in actuarial assumptions or plan rules, consists of two components:

1. **Actuarial gain or loss** is the change in PBO that occurs when one or more actuarial assumptions are revised in estimating PBO. A revised discount rate is the most frequent source of revision as it depends on the prevailing interest rate in the economy. Other assumptions that can change are mortality rates, employee turnover, and compensation growth rates. Altering these assumptions can have major effects on PBO and, hence, on economic pension cost.
2. **Prior service cost** arises from changes in pension plan rules on PBO. Prior service cost includes retroactive pension benefits granted at the initiation of a pension plan or benefits created by plan amendments typically occurring during collective bargaining or labor negotiations. These changes are often retroactive and give credit for employees’ prior services.

These nonrecurring costs are explained by returning to the J. Smith example. First, let’s consider an actuarial change: Assume the actuary changes the assumption regarding

⁸ We refer to this cost as the *economic* pension cost to distinguish it from the *reported* pension cost determined under GAAP that is discussed in the next section.

compensation growth rate from 4% to 5%. Because of this assumption change, Smith's estimated compensation at retirement increases from \$21,911 to \$26,533 (see column headed "Assumption Change—Actuarial" in Exhibit 3B.1). This change also increases the PBO at the end of 2006 by \$1,036 (from \$4,910 to \$5,946), representing an actuarial loss.

Additionally, let's assume the pension formula changes to one-and-one-half weeks' compensation per year of service (instead of one week per year of service). This effect is shown in the column headed "Assumption Change—Plan" in Exhibit 3B.1. This results in the pension benefit per annum increasing by 50% from \$3,061 to \$4,592. This also yields a corresponding increase of \$2,973 ($\$8,919 - \$5,946$) in the PBO. Because this change compensates Smith for any prior service, it represents a prior service cost.

The final component in arriving at the net economic pension cost is to adjust for the actual return on plan assets:

- **Actual return on plan assets** is the pension plan's earnings. Earnings on the plan's assets consist of: *investment income*—capital appreciation and dividend and interest received, less management fees, plus *realized and unrealized appreciation* (or minus depreciation) of other plan assets. The return on plan assets usually reduces pension cost (unless the return is negative, in which case it increases pension cost). In the J. Smith example, actual return on plan assets in 2006 is \$440 (22% of \$2,000).

The determination of the net economic cost is summarized at the bottom of Exhibit 3B.2 (with amounts from the J. Smith example).

Articulation of Pension Cost and Funded Status

This section explains the articulation of economic pension cost and the funded status. Articulation arises from the linkage of the balance sheet, the income statement, and the statement of cash flows that is inherent in accrual accounting. Understanding this articulation improves analysis of pension accounting.

Exhibit 3B.2 shows this articulation for the J. Smith example using T-accounts. For 2006, assume both the actuarial and the prior service cost changes are in effect. The beginning balance on the pension obligation is \$3,824 (which is the PBO at the end of 2005—see Exhibit 3B.1) and the closing balance is \$8,919 (which is the PBO at the end of 2006 after both actuarial and prior service cost effects). The change in the pension obligation is entirely explained by the gross pension cost. Benefits paid reduce the pension obligation, but no benefits are paid in this example.

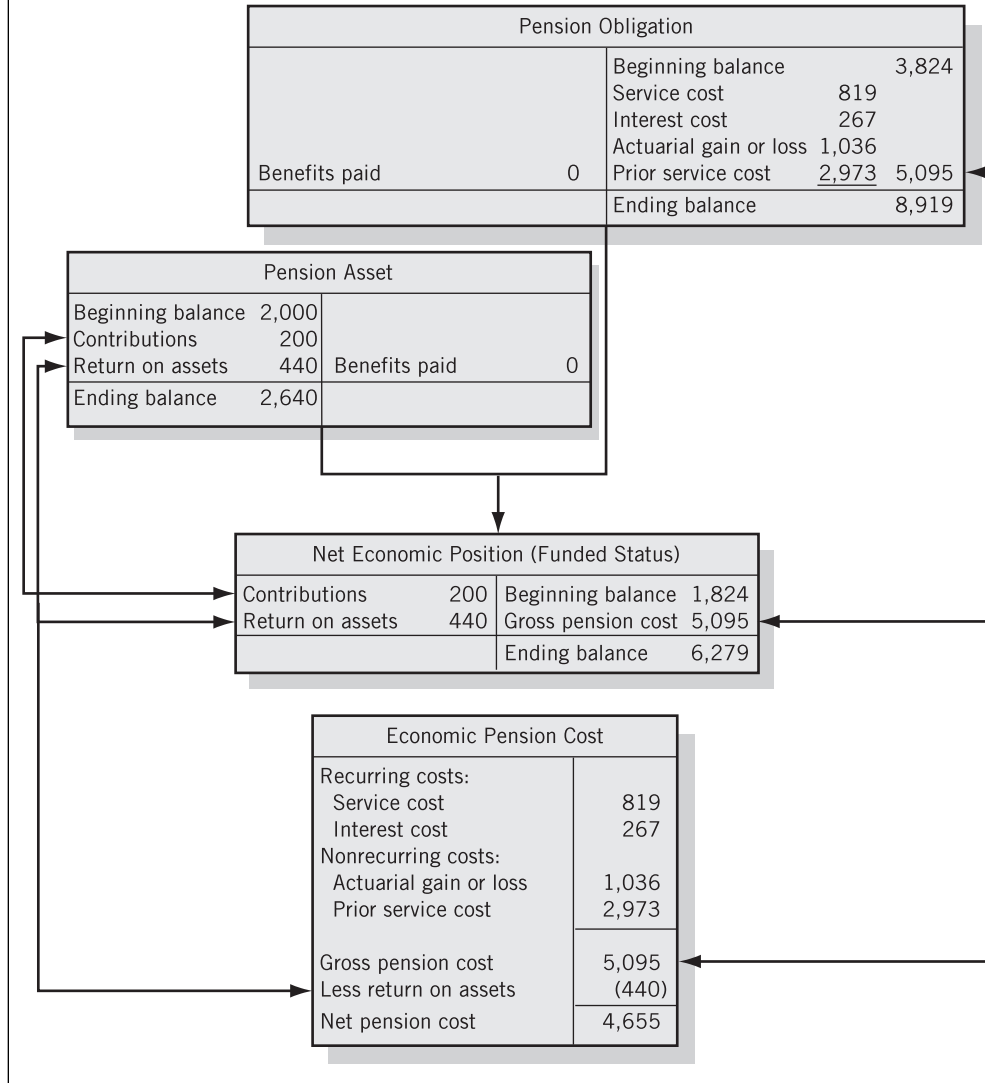
The pension asset opening balance of \$2,000 increases to \$2,640 at the end of 2006. Employer's contributions (\$200) and actual return on assets (\$440) make up this change. Any benefits paid would decrease both pension assets and PBO equally, but again, no benefits are paid in this example. The net economic position (or funded status) is the difference between the value of pension assets and the projected benefit obligation. The net economic position deteriorates from \$1,824 underfunded to \$6,279 underfunded. The movement in funded status is summarized in Exhibit 3B.2.

PENSION ACCOUNTING REQUIREMENTS

A large component of the (economic) net pension cost comprises of nonrecurring items. In the J. Smith example, \$4,009 (Actuarial gain/loss \$1,036 + Prior service cost \$2,973) out of a total net cost of \$4,655 are nonrecurring. In addition the \$440 return

**Articulation of Net Economic Position (Funded Status) and Economic Pension Cost:
J. Smith Example**

Exhibit 3B.2



on plan assets also includes a large nonrecurring component—one cannot expect to earn 22% return every year on pension assets! These nonrecurring components make the net pension cost extremely volatile. Realizing this problem, current pension accounting (which is specified under *SEAS 158*) creates an elaborate smoothing mechanism wherein the recognition of the volatile and nonrecurring components of the economic pension cost are delayed through deferral and subsequent amortization. The balance sheet, however, recognizes the funded status of the plan. The income statement and balance sheet effects are articulated by recognizing the difference between the economic pension cost and its smoothed counterpart (which is included in net income) in *other comprehensive income*. In the subsequent pages, we shall explain how current pension accounting operates in greater detail, using the J. Smith example.

Exhibit 3B.3**Economic versus Reported Pension Costs—J. Smith Example**

Economic Pension Cost	Smoothing	Reported Pension Expense (Net Periodic Pension Cost)
Service cost \$ 819		Service cost \$ 819
Interest cost 267		Interest cost 267
Actual return (440)	\$ (240)	Expected return (200)
Actuarial gain or loss 1,036	<u>1,036</u>	
Net gain or loss	796	
Prior service cost 2,973	2,973	
	(22)	Amortization:
	(156)	Net gain or loss 22
		Prior service cost 156
Total <u>\$4,655</u>	<u>\$3,591</u>	<u>\$1,064</u>

Recognized Pension Cost

Exhibit 3B.3 compares the economic pension cost (determined based on actual fluctuations in pension assets and liabilities) with the amount that is recognized in net income (termed the **net periodic pension cost**). The actual return on plan assets has been replaced with an **expected return on plan assets**. Furthermore, the actuarial gain or loss (arising from changes in assumptions used to compute the pension liability) is not recognized in current income. Instead, it is deferred, and only a portion is recognized (via amortization). A similar treatment is accorded to prior service cost. Although the economic pension cost in this example equals \$4,655, the reported pension cost is only \$1,064 because a net amount of \$3,591 (\$3,769 deferral less \$178 amortization) of pension-related expense has been deferred through the smoothing mechanism. The net deferrals of \$3,591 will be charged to other comprehensive income for the year.

We review each deferral (and amortization) here in detail:

- **Expected return on plan assets.** While capital markets are volatile in the short run, long-term returns are more predictable. Pension plans invest for the long run, so it makes sense to include only the stable expected return on plan assets (rather than the volatile actual return) when computing pension cost. Accordingly, the differences between expected and actual returns are deferred. Expected return on plan assets is computed by multiplying the expected long-term rate of return on plan assets by the market value of plan assets at the beginning of the period. In the J. Smith example, expected return is \$200 = 10% (expected return on plan assets) × \$2,000 (opening market value of plan assets). Actual return is \$440, and therefore \$240 (\$440 – \$200) is deferred.
- **Deferral of actuarial gains and losses.** Actuarial gains and losses arise from changes in actuarial assumptions. The most common change is that relating to changes in discount rates, which are related to fluctuations in interest rates in the economy. Because actuarial gains and losses are nonrecurring in nature, they are also deferred. In the J. Smith example, actuarial loss of \$1,036 is deferred.
- **Amortization of net gain or loss.** First, deferrals of actuarial gains and losses and the difference between expected and actual return are netted together as **net gain or loss**.⁹ Next, this netted amount is added to any unamortized balance carried

⁹ The logic for this netting is that these two items naturally tend to offset each other if plan funds are invested in securities that have a similar risk profile as the pension obligation.

forward from the past (i.e., net cumulative deferral less cumulative amortization at the beginning of the period) to determine the total unrecognized net gain or loss. Then, a *corridor method* is applied to determine whether, and how much of, the unrecognized net gain or loss should be amortized. The corridor is the *larger* of 10% of plan assets' value or 10% of the pension liability (PBO) at the beginning of the year. Only the *excess* of unrecognized net gain or loss above the corridor is amortized on a straight-line basis over the average remaining service period of plan employees. In the J. Smith example, the net gain or loss is \$796 ($\$1,036 - \240); this includes only the unrecognized portion for the year because there is no carry-forward from the previous years. Opening PBO and plan asset value are \$3,824 and \$2,000, respectively, and so the corridor is $10\% \times \$3,824 = \382 . Therefore, the amount that qualifies for amortization is \$414 ($\$796 - \382). The remaining service life for J. Smith is 19 years, so amortization of net gain or loss is approximately \$22 ($\$414 \div 19$).

- **Deferral and amortization of prior service cost.** Prior service costs are retroactive benefits that arise mainly through renegotiation of pension contracts. They pertain to many periods and are nonrecurring by nature. Accordingly, pension accounting defers and amortizes prior service cost effects over the average remaining service period of the plan employees on a straight-line basis. Such deferred recognition allows these costs of retroactive benefits to be matched against future economic benefits expected to be realized from their granting. In the J. Smith example, prior service cost is \$2,973 and is amortized over 19 years at \$156 per year.

Recognized Status on the Balance Sheet

Under current pension accounting rules (*SEAS 158*), the funded status of the pension plan is recognized in the balance sheet. In the J. Smith example, therefore, the amount reported in the balance sheet will be a net liability of \$6,279. Two issues need to be noted in this regard. First, companies do not report the pension liability (or asset, as the case may be) as a separate line item on the balance sheet. For example, Colgate distributes its pension liabilities among current and noncurrent liabilities and noncurrent assets (see Appendix A at the end of this book). Second, because the amount recognized in the income statement (i.e., the net periodic pension cost) includes deferrals, it will not articulate with the funded status shown on the balance sheet. The net deferrals are charged to *other comprehensive income* and will be included in the balance sheet as part of *accumulated comprehensive income*, which is part of shareholders equity. In the J. Smith example, \$3,591 will be charged to other comprehensive loss for the period, and the same amount will also appear in accumulated other comprehensive loss in the balance sheet (because there is no opening balance in accumulated other comprehensive income).

For the J. Smith example, the articulation between the income statement and balance sheet is as follows:

Closing funded status in balance sheet	\$6,279
Opening funded status in balance sheet	<u>1,824</u>
Change in funded status (increase in liability)	<u>\$4,455</u>
Explained by:	
Decrease in retained earnings (pension expense)	\$1,064
Decrease in accumulated comprehensive income	3,591
Decrease in cash (contribution)	<u>(200)</u>
	<u>\$ 4,455</u>

OVERVIEW OF OPEB ACCOUNTING

OPEB accounting is currently governed by *SEAS 158*, which is the same standard that governs pension accounting. The accounting for OPEBs is directly parallel to that of pension accounting. We examine some details next.

Recognized Status on the Balance Sheet

The starting point in determining the OPEB obligation is estimating the **expected postretirement benefit obligation** (EPBO), which is the present value of future OPEB payments associated with the employees. The entire EPBO is not immediately recognized in the financial statements. Instead, the total EPBO is allocated over the employees' expected service with the company. Therefore, the obligation that is recognized in the balance sheet at a given point in time is the fraction of the EPBO that is proportional to the length of the employee's current service. This proportionate obligation, termed the **accumulated postretirement benefit obligation** (APBO), is recognized on the balance sheet. That is, the APBO is that portion of the EPBO "earned" by employee services as of a given date. The funded status of OPEBs is the difference between the APBO and the fair value of assets designated to meet this obligation (if any).

Recognized OPEB Cost

OPEB cost recognized in net income includes the following components:

- **Service cost.** The actuarial present value of benefits earned by employees during the period, that is the portion of EPBO attributable to the current year. EPBO is typically allocated to each year in the expected service period of the employees on a straight-line basis.
- **Interest cost.** The imputed growth in APBO during a period using an assumed discount rate.
- **Expected return on plan assets.** This is equal to the opening fair market value of OPEB plan assets multiplied by the long-term expected rate of return on those assets.
- **Amortization of net gain or loss.** As with pensions, actuarial gains and losses can arise when actuarial assumptions, such as the health care cost trend rates, are revised over time. The actuarial gains/losses are added to the difference between actual and expected return on plan assets, and the net amount (termed net gain or loss) is deferred. The cumulative net gain or loss is amortized on a straight-line basis over the employee's service using a similar 10% corridor as in the case of pensions.
- **Amortization of prior service cost.** Retroactive benefits' changes from plan amendments, or prior service costs, are deferred and amortized on a straight-line basis over the employee's expected remaining service period.

Articulation of Balance Sheet and Net Income

As with pensions, the smoothed net postretirement benefit cost will not articulate with changes to the funded status in the balance sheet. Again as in the case of pensions, the net deferrals during a year are included in other comprehensive income for that year and the cumulative net deferrals are included in accumulated other comprehensive income.

GUIDANCE ANSWERS TO ANALYSIS VIEWPOINTS

LABOR NEGOTIATOR

We first must realize that while postretirement benefits are recorded as liabilities on the balance sheet (and as expenses on the income statement), their funding is less than guaranteed. It is clear from management's counteroffer that this company does not fully fund postretirement benefits—note, funding is not required in accounting for these benefits. This lack of funding can yield substantial losses for employees if the company is insolvent and it cannot be forced to fund these obligations. As labor negotiator, you sometimes must trade off higher current wages for rewards such as postretirement benefits *and* a guarantee to fund those benefits. From the company's perspective, it wishes to limit recorded liabilities and its funding commitments as it depletes resources. Your task as labor's representative is to obtain both postretirement benefits and funding for those benefits. Accordingly, while you need to weigh the pros and cons of the details, management's offer should be viewed seriously as a real employee benefit.

MONEY MANAGER

Your decision involves aspects of both risk and return. From the perspective of risk, preferred stock is usually a senior claimant to the net assets of a company. This means that in

the event of liquidation, preferred stock receives preference before any funds are paid to common shareholders. From the perspective of return, the decision is less clear. Your common stock return involves both cash dividends and price appreciation, while preferred stock return relates primarily to cash dividends. If recent returns are reflective of future returns, then your likely preference is for preferred stock given its equivalence in returns along with its reduced risk exposure.

SHAREHOLDER

Your interpretation of this stock split is likely positive. This derives from the 'information signal' usually embedded in this type of announcement. Also, a lower price usually makes the stock more accessible to a broader group of buyers and can reduce transaction costs in purchasing it. Yet, too low a price can create its own problems. Consequently, a split is perceived as a signal of management's expectation (forecast) that the company will perform at the same or better level into the future. We must recognize there is no tangible shareholder value in a split announcement—namely, there is no income to shareholders. However, there is transfer of an amount from retained earnings to common stock.

QUESTIONS

[Superscript ^{A(B)} identifies assignment material based on Appendix 3A(3B).]

- 3-1. Identify and describe the two major sources (as linked with business activities) of current liabilities.
- 3-2. Identify the major disclosure requirements for financing-related current liabilities.
- 3-3. Describe the conditions necessary to demonstrate the ability of a company to refinance its short-term debt on a long-term basis.
- 3-4. Explain how bond discounts and premiums usually arise. Describe how they are accounted for.
- 3-5. Both convertibility and warrants attached to debt aim at increasing the attractiveness of debt securities and lowering their interest cost. Describe how the costs of these two features affect income and equity.
- 3-6. Explain how the issuance of convertible debt and warrants can affect the valuation analysis conducted by current and potential stockholders.
- 3-7. Describe the major disclosure requirements for long-term liabilities.
- 3-8. Debt contracts usually place restrictions on the ability of a company to deploy resources and to pursue business activities. These are often referred to as debt covenants.
 - a. Identify where information about such restrictions is found.
 - b. Define margin of safety as it applies to debt contracts and describe how the margin of safety can impact assessment of the relative level of company risk.

- 3-9. Explain how analysis of financial statements is used to evaluate a company's liabilities, both existing and contingent.
- 3-10.
 - a. Describe the criteria for classifying leases by a *lessee*.
 - b. Prepare a summary of accounting for leases by a *lessee*.
- 3-11.^A
 - a. Identify the different classifications of leases by a *lessor*. Describe the criteria for classifying each lease type.
 - b. Explain the accounting procedures for leases by a *lessor*.
- 3-12.^A Describe the provisions concerning leases involving real estate.
- 3-13. Discuss the implications of lease accounting for the analysis of financial statements.
- 3-14.^A When a lease is considered an operating lease for both the lessor and the lessee, describe what amounts will be found on the balance sheets of both the lessor and the lessee related to the lease obligation and the leased asset.
- 3-15.^A When a lease is considered a capital lease for both the lessor and the lessee, describe what amounts will be found on the balance sheets of both the lessor and the lessee related to the lease obligation and the leased asset.
- 3-16. Discuss how the lessee reflects the cost of leased equipment in the income statement for (a) assets leased under operating leases and (b) assets leased under capital leases.
- 3-17.^A Discuss how the lessor reflects the benefits of leasing in the income statement under (a) an operating lease and (b) a capital lease.
- 3-18. Companies use various financing methods to avoid reporting debt on the balance sheet. Identify and describe some of these off-balance-sheet financing methods.
- 3-19. Describe differences between defined benefit and defined contribution pension plans. How does the accounting differ across these two types of plans?
- 3-20. From a purely economic point of view define what constitutes the following: (a) pension obligation, (b) pension plan assets, (c) net economic position of the pension plan, and (d) economic pension cost?
- 3-21. What are the primary nonrecurring components of pension cost? Describe how current pension accounting defers and amortizes these nonrecurring components.
- 3-22. The pension cost included in net income is the net periodic pension cost. How does it differ from the economic pension cost? What is the rationale for recognizing the smoothed net periodic pension cost instead of the economic pension cost in income?
- 3-23. What does current pension accounting (*SFAS 158*) recognize in the balance sheet? How is it different from what was recognized earlier (under *SFAS 87*)?
- 3-24. How does current pension accounting (*SFAS 158*) articulate the net economic position (funded status) recognized in the balance sheet with the smoothed net periodic pension cost recognized in net income?
- 3-25. What are other postretirement employee benefits (OPEBs)? What are the major differences between pensions and OPEBs?
- 3-26. What are the primary categories of information disclosed in the postretirement benefit footnote?
- 3-27. What considerations must be kept in mind when adjusting the financial statements (balance sheet and income statement) for postretirement benefits?
- 3-28. What are the major actuarial assumptions underlying the postretirement benefits? Explain how a manager can manipulate these assumptions to window-dress the financial statements.
- 3-29. Define and describe pension risk exposure. What combination of factors precipitated the "pensions crisis" in the early 2000s? What are the three things that an analyst should check when evaluating pension risk?
- 3-30. What determines a company's cash flows related to pensions and OPEBs? Why are current cash outflows relating to pensions not a good predictor for future cash flows?
- 3-31.^B Describe alternative measures for the pension obligation. Which measure is legally binding?
- 3-32.^B Describe the "corridor method" for deferring and amortizing actuarial gains and losses and return on plan assets. What is the rationale for using this method?

- 3-33.^B What is the OPEB obligation and how is it determined?
- 3-34. *a.* Explain a loss contingency. Provide examples.
b. Explain the two conditions necessary before a company can record a loss contingency against income.
- 3-35. Define the term *big bath*. Explain when a manager would consider “taking a big bath” and how analysis of current financial position and future profitability might be adjusted if one suspects that a company has taken a big bath.
- 3-36. Define a commitment and provide three examples of commitments for a company.
- 3-37. Explain when a commitment becomes a recorded liability.
- 3-38. Define off-balance-sheet financing and provide three examples.
- 3-39. Describe the required financial statement disclosures for financial instruments with off-balance-sheet risk of loss. How might these disclosures be used to assist financial analysis?
- 3-40. Describe the criteria a company must meet before a transfer of receivables with recourse can be booked as a sale rather than as a loan.
- 3-41. Explain how off-balance-sheet financing items should be treated for financial analysis purposes.
- 3-42. Identify types of equity securities that are similar to debt.
- 3-43. Identify and describe several categories of reserves, allowances, and provisions for expenses and losses.
- 3-44. Explain why analysis must be alert to the accounting for future loss reserves.
- 3-45. Distinguish between different kinds of deferred credits on the balance sheet. Discuss how to analyze these accounts.
- 3-46. Identify objectives of the classifications and note disclosures associated with the equity section of the balance sheet. Explain the relevance of these disclosures to analysis of financial statements.
- 3-47. Identify features of preferred stock that make it similar to debt. Identify the features that make it more like common stock.
- 3-48. Explain the importance of disclosing the liquidation value of preferred stock, if different from par or stated value, for analysis purposes.
- 3-49. Explain why the accounting for small stock dividends requires that market value, rather than par value, of the shares distributed be charged against retained earnings.
- 3-50. Identify what items are treated as prior period adjustments.
- 3-51. Many companies report “minority interests in subsidiary companies” between the long-term debt and equity sections of a consolidated balance sheet; others present them as part of shareholders’ equity.
a. Describe minority interest.
b. Indicate where on the consolidated balance sheet it best belongs. Discuss what different points of view these differing presentations represent.

EXERCISES

Refer to the financial statements of **Campbell Soup** in Appendix A.

Required:

- a.* Determine the net change in long-term debt during Year 11.
- b.* Analyze and discuss the relative mix of debt financing for Campbell Soup. Do you think Campbell Soup has any solvency or liquidity problems? Do you think the company should have more or less debt relative to equity (or is its current financing strategy proper)? Do you think that Campbell Soup would encounter difficulty if they wanted to issue additional debt to fund an especially attractive business opportunity?

Campbell Soup

EXERCISE 3-1
Interpreting and Analyzing Debt Disclosures

CHECK

(a) \$(33.2) mil.

EXERCISE 3-2*Evaluating Accounting for Leases by the Lessee*

On January 1, Year 8, Von Company entered into two noncancellable leases of new machines for use in its manufacturing operations. The first lease does not contain a bargain purchase option and the lease term is equal to 80% of the estimated economic life of the machine. The second lease contains a bargain purchase option and the lease term is equal to 50% of the estimated economic life of the machine.

Required:

- a. Explain the justification for requiring lessees to capitalize certain long-term leases. Do not limit your discussion to the specific criteria for classifying a lease as a capital lease.
- b. Describe how a lessee accounts for a capital lease at inception.
- c. Explain how a lessee records each minimum lease payment for a capital lease.
- d. Explain how Von should classify each of the two leases. Provide justification.

(AICPA Adapted)

EXERCISE 3-3*Distinguishing between Capital and Operating Leases*

Capital leases and operating leases are two major classifications of leases.

Required:

- a. Describe how a lessee accounts for a capital lease both at inception of the lease and during the first year of the lease. Assume the lease transfers ownership of the property to the lessee by the end of the lease.
- b. Describe how a lessee accounts for an operating lease both at inception of the lease and during the first year of the lease. Assume the lessee makes equal monthly payments at the beginning of each month during the lease term. Describe any changes in the accounting when rental payments are not made on a straight-line basis.

Note: Do not discuss the criteria for distinguishing between capital and operating leases.

(AICPA Adapted)

EXERCISE 3-4^A*Analyzing and Interpreting Sales-Type and Financing Leases*

Sales-type leases and direct financing leases are two common types of leases from a lessor's perspective.

Required:

Compare and contrast a sales-type lease with a direct-financing lease on the following dimensions:

- a. Gross investment in the lease.
- b. Amortization of unearned interest income.
- c. Manufacturer's or dealer's profit.

Note: Do not discuss the criteria for distinguishing between sales-type, direct financing, and operating leases.

(AICPA Adapted)

EXERCISE 3-5*Recognizing Unrecorded Liabilities for Analysis*

Consider the following excerpt from an article published in **Forbes:**

Forbes

The Supersolvent No longer is it a mark of a fuddy-duddy to be free of debt. There are lots of advantages to it. One is that you always have plenty of collateral to borrow against if you do get into a jam. Another is that if a business investment goes bad, you don't have to pay interest on your mistake . . . debt-free, you don't have to worry about what happens if the prime rate goes to 12% again. You might even welcome it. You could lend out your own surplus cash at those rates.

The article went on to list 92 companies reporting no more than 5% of total capitalization in noncurrent debt on their balance sheets.

Required:

Explain how so-called debt-free companies (in the sense used by the article) can possess substantial long-term debt or other unrecorded noncurrent liabilities. Provide examples.

(CFA Adapted)

Nearly all companies confront loss contingencies of various forms.

Required:

- Describe what conditions must be met for a loss contingency to be accrued with a charge to income.
- Explain when disclosure is required, and what disclosures are necessary, for a loss contingency that does not meet the criteria for accrual of a charge to income.

EXERCISE 3-6

*Interpreting Disclosures
for Loss Contingencies*

Lawsuits are one type of contingent loss, where the loss is contingent upon an adverse settlement or verdict in the case. Domestic tobacco companies are currently facing lawsuits from several states. The tobacco litigation loss contingency should be accrued if a loss is probable and can be estimated. Probable and estimable are difficult concepts that offer managers a fair degree of discretion.

Required:

- List two reasons why the managers in this case might resist quantification and accrual of a loss liability.
- Describe a circumstance when managers might be willing to accrue a contingent loss that they had earlier resisted accruing.

EXERCISE 3-7

*Analyzing Loss
Contingencies*

Refer to the financial statements of **Campbell Soup** in **Campbell Soup** Appendix A.

Required:

- Identify the cause of the \$101.6 million increase in shareholders' equity for Year 11.
- Compute the average price at which treasury shares were repurchased during Year 11.
- Compute the book value of common stock at the end of Year 11.
- Compare the book value per share of common stock and the average price at which treasury shares were repurchased during the year (a measure of average market value per share during the year). What are some reasons why these figures are different?

EXERCISE 3-8

*Analyzing Equity
and Book Value*

CHECK

(c) \$14.12

Ownership interests in a corporation are reported both in the balance sheet under shareholders' equity and in the statement of shareholders' equity.

Required:

- List the principal transactions and events reducing the amount of retained earnings. (Do not include appropriations of retained earnings.)
- The shareholders' equity section of the balance sheet makes a distinction between contributed capital and retained earnings. Discuss why this distinction is important.
- There is frequently a difference between the purchase price and sale price of treasury stock. Yet, practitioners agree that a corporation's purchase or sale of its own stock cannot result in a profit or loss to the corporation. Explain why corporations do not recognize the difference between the purchase and sale price of treasury stock as a profit or loss.

EXERCISE 3-9

*Interpreting
Shareholders' Equity
Transactions*

EXERCISE 3-10*Interpreting
Capital Stock*

Capital stock is a major part of a corporation's equity. The term *capital stock* embraces both common and preferred stock.

Required:

- Identify the basic rights inherent in ownership of common stock and explain how owners exercise them.
- Describe preferred stock. Discuss various preferences often afforded preferred stock.
- In the analysis and interpretation of equity securities of a corporation, it is important to understand certain terminology. Define and describe the following equity items:
 - (1) Treasury stock
 - (2) Stock right
 - (3) Stock warrant

EXERCISE 3-11*Dividends and
Capital Stock***Presidential Realty Corporation Presidential Realty Corporation**

reports the following regarding its distributions paid on common stock: "Cash distributions on common stock were charged to paid-in surplus because the parent company has accumulated no earnings (other than its equity in undistributed earnings of certain subsidiaries) since its formation."

Required:

- Explain whether these cash distributions are dividends.
- Speculate as to why Presidential Realty made such a distribution.

EXERCISE 3-12*Dividends versus
Treasury Stock*

The purchase of treasury stock (commonly called stock buybacks) is being done with increasing frequency in lieu of dividend payments.

Required:

- Explain why stock buybacks are similar to dividends from the company's viewpoint.
- Explain why managers might prefer the purchase of treasury shares to the payment of dividends.
- Explain why investors might prefer that firms use excess cash to purchase treasury shares rather than pay dividends.

EXERCISE 3-13*Cash Balance
Pension Plan*

IBM recently announced its intention to begin offering a cash balance pension plan. A cash balance pension plan is a form of defined contribution pension plan. IBM is not alone as there is a distinct trend in favor of defined contribution pension plans.

IBM*Required:*

- Describe the ramifications for analysis of the level and variability of both earnings and cash flows for defined benefit versus defined contribution pension plans.
- Why do you think managers prefer the defined contribution pension plan?
- Under what circumstances would employees favor defined benefit versus defined contribution plans?

EXERCISE 3-14*Understanding
Defined Benefit
Pension Plans*

Carson Company sponsors a defined benefit pension plan. The plan provides pension benefits determined by age, years of service, and compensation. Among the components included in the recognized net pension cost for a period are service cost, interest cost, and actual return on plan assets.

Required:

- Identify at least two accounting challenges of the defined benefit pension plan. Why do these challenges arise?
- How does Carson determine the service cost component of the net pension cost?
- How does Carson determine the interest cost component of the net pension cost?
- How does Carson determine the actual return on plan assets component of the net pension cost?

PROBLEMS

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

Campbell Soup Company

PROBLEM 3-1

*Interpreting
Notes Payable and
Lease Disclosures*

Required:

- Campbell Soup Company has zero coupon notes payable outstanding.
 - Indicate the total amount due noteholders on the maturity date of these notes.
 - The liability for these notes is lower than the maturity value. Describe the pattern in the reported amounts for this liability in future years.
 - Ignoring dollar amounts, prepare the annual journal entry that Campbell Soup Company makes to record the liability for accrued interest.
- Campbell Soup reports long-term debt on the balance sheet totaling \$772.6 million. Conceptually, what does the amount \$772.6 represent? Over what years will cash outflows occur as related to this debt?
- The note on leases reports future minimum lease payments under capital leases as \$28.0 million and the present value of such payments as \$21.5 million. Identify which amount is actually paid in future years.
- Identify where in the financial statements that Campbell Soup reports the payment obligation for operating leases of \$71.9 million.
- Predict what interest expense will be in Year 12 assuming no substantial change in the debt structure (Hint: Identify the substantial interest-bearing obligations of the company and multiply that balance times an appropriate estimate of the effective rate for that debt).

CHECK

(e) Rate is 11.53%

On January 1, Year 1, Burton Company leases equipment from Nelson Company for an annual lease rental of \$10,000. The lease term is five years, and the lessor's interest rate implicit in the lease is 8%. The lessee's incremental borrowing rate is 8.25%. The useful life of the equipment is five years, and its estimated residual value equals its removal cost. Annuity tables indicate that the present value of an annual lease rental of \$1 (at 8% rate) is \$3.993. The fair value of leased equipment equals the present value of rentals. (Assume the lease is capitalized.)

Required:

- Prepare accounting entries required by Burton Company for Year 1.
- Compute and illustrate the effect on the income statement for the year ended December 31, Year 1, and for the balance sheet as of December 31, Year 1.
- Construct a table showing payments of interest and principal made every year for the five-year lease term.
- Construct a table showing expenses charged to the income statement for the five-year lease term if the equipment is purchased. Show a column for (1) amortization, (2) interest, and (3) total expenses.
- Discuss the income and cash flow implications from this capital lease.

PROBLEM 3-2

*Capital Lease
Implications for
Financial Statements*

CHECK

Interest is \$2,649.95
for Year 2

On January 1, Borman Company, a lessee, entered into three noncancellable leases for new equipment identified as: Lease J, Lease K, and Lease L. None of the three leases transfers ownership of the equipment to Borman at the end of the lease term. For each of the three leases, the present value at the beginning of the lease term of the minimum lease payments, excluding that portion of the payments representing executory costs such as insurance, maintenance, and taxes to be paid by the lessor, including any profit thereon, is 75% of the excess of the fair value of the equipment to the lessor at the inception of the lease over any related investment tax credit retained by the lessor and expected to be realized by the lessor. The following additional information is distinct for each lease:

- Lease J does not contain a bargain purchase option; the lease term is equal to 80% of the estimated economic life of the equipment.
- Lease K contains a bargain purchase option; the lease term is equal to 50% of the estimated economic life of the equipment.

PROBLEM 3-3

*Explaining and
Interpreting Leases*

- Lease L does not contain a bargain purchase option; the lease term is equal to 50% of the estimated economic life of the equipment.

Required:

CHECK

(a) Leases J and K are capital leases

- Explain how Borman Company should classify each of these three leases. Discuss the rationale for your answer.
- Identify the amount, if any, Borman records as a liability at inception of the lease for each of the three leases.
- Assuming that Borman makes the minimum lease payments on a straight-line basis, describe how Borman should record each minimum lease payment for each of these three leases.
- Assess accounting practice in accurately portraying the economic reality for each lease.

(AICPA Adapted)

PROBLEM 3-4

*Interpreting
Accounting
for Bonds*

One means for a corporation to generate long-term financing is through issuance of noncurrent debt instruments in the form of bonds.

Required:

- Describe how to account for proceeds from bonds issued with detachable stock purchase warrants.
- Contrast a serial bond with a term (straight) bond.
- Interest expense, under the generally accepted effective interest method, equals the book value of the debt (face value plus unamortized premium or minus unamortized discount) multiplied by the effective rate of the debt. Any premium or discount is amortized to zero over the life of the bond. Explain how both interest expense and the debt's book value will differ from year-to-year for debt issued at a premium versus a discount.
- Describe how to account for and classify any gain or loss from reacquisition of a long-term bond prior to its maturity.
- Assess accounting for bonds in the analysis of financial statements.

PROBLEM 3-5

*Leases, Pensions,
and Receivables
Securitization*

Westfield Capital Management Co.'s equity investment strategy is to invest in companies with low price-to-book ratios, while considering differences in solvency and asset utilization. Westfield is considering investing in the shares of either Jerry's Departmental Stores (JDS) or Miller Stores (MLS). Selected financial data for both companies follow:

SELECTED FINANCIAL DATA AS OF MARCH 31, 2006

<i>(\$ millions)</i>	JDS	MLS
Sales.....	\$21,250	\$18,500
Fixed assets.....	5,700	5,500
Short-term debt.....		1,000
Long-term debt.....	2,700	2,500
Equity.....	6,000	7,500
Outstanding shares (in millions).....	250	400
Stock price (\$ per share).....	51.50	49.50

Required:

- Compute each of the following ratios for both JDS and MLS:
 - Price-to-book ratio
 - Total-debt-to-equity ratio
 - Fixed-asset-utilization (turnover)
- Select the company that better meets Westfield's criteria.

c. The following information is from these companies' notes as of March 31, 2006:

- (1) JDS conducts a majority of its operations from leased premises. Future minimum lease payments (MLP) on noncancellable operating leases follow (\$ millions):

MLP	
2007.....	\$ 259
2008.....	213
2009.....	183
2010.....	160
2011.....	155
2012 and later	706
Total MLP	\$1,676
Less interest	(676)
Present value of MLP	\$1,000
Interest rate.....	10%

- (2) MLS owns all of its property and stores.
 (3) During the fiscal year ended March 31, 2006, JDS sold \$800 million of its accounts receivable with recourse, all of which was outstanding at year-end.
 (4) Substantially all of JDS's employees are enrolled in company-sponsored defined contribution plans. MLS sponsors a defined benefits plan for its employees. The MLS pension plan assets' fair value is \$3,400 million. No pension cost is accrued on its balance sheet as of March 31, 2006 (note that MLS accounts for its pension plans under *SFAS 87*). The details of MLS's pension obligations follow:

(\$ millions)	ABO	PBO
Vested	\$1,550	\$1,590
Nonvested	40	210
Total	\$1,590	\$1,800

Compute all three ratios in part (a) after making necessary adjustments using the note information. Again, select the company that better meets Westfield's criteria. Comment on your decision in part (b) relative to the analysis here.

CHECK

(c) Price-to-Adjusted-Book, JDS = \$2.15, MLS = \$2.18

(CFA Adapted)

The U.S. government actively seeks the identification and cleanup of sites that contain hazardous materials. The Environmental Protection Agency (EPA) identifies contaminated sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The government will force parties responsible for contaminating the site to pay for cleanup whenever possible. Also, companies face lawsuits for persons injured by environmental pollution. Potentially responsible parties include current and previous owners and operators of hazardous waste disposal sites, parties who arranged for disposal of hazardous materials at the site, and parties who transported the hazardous materials to the site. Potentially responsible parties should accrue a contingent environmental liability if the outcome of pending or potential action is probable to be unfavorable and a reasonable estimate of costs can be made. Amounts for environmental liabilities can be large. For example, **Exxon** paid damages totaling \$5 billion for the highly publicized Exxon Valdez tanker accident. Estimates to clean up sites identified by the EPA range as high as \$500 billion to \$750 billion. The 'superfund' sites are sites with the highest priority for cleanup under CERCLA. Estimates to clean up these sites alone total \$150 billion. The responsible parties face additional lawsuits as well and these potential losses are not included in these totals.

Exxon

PROBLEM 3-6

Analyzing
Environmental Liability
Disclosures

Required:

- Discuss why environmental liabilities are especially difficult to measure.
- Discuss how you would adjust the financial analysis of companies that are predisposed to environmental legal action but have not accrued any contingent loss amounts. For example, how might you adjust your beliefs about the financial position of Union Carbide and its competitors following the Bhopal tragedy?
- Identify three industries that you consider as likely to face significant environmental risk. Explain.

PROBLEM 3-7

*Analyzing
Pension Plan
Disclosures*

Refer to the financial statements of **Campbell Soup Company** in Appendix A. The Note on Pension Plans and Retirement Benefits describes computation of pension expense, projected benefit obligation (PBO), and other elements of the pension plan (all amounts in millions).

Required:

CHECK

(b) Year 11 rate, 8.75%

- Explain what the service cost of \$22.1 for Year 11 represents.
- What discount rate did the company assume for Year 11? What is the effect of Campbell's change from the discount rate used in Year 10?
- How is the "interest on projected benefit obligation" computed?
- Actual return on assets is \$73.4. Does this item enter in its entirety as a component of pension cost? Explain.
- Campbell shows an accumulated benefit obligation (ABO) of \$714.4. What is this obligation?
- Identify the PBO amount and explain what accounts for the difference between it and the ABO.
- Has Campbell funded its pension expense at the end of Year 11?

PROBLEM 3-8^B

*Predicting Pension
Expense*

The weighted-average discount rate used in determining General Energy Co.'s actuarial present value of its pension obligation is 8.5%, and the assumed rate of increase in future compensation is 7.5%. The expected long-term rate of return on its plan assets is 11.5%. Its pension obligation at the end of Year 6 is \$2,212,000, and its accumulated benefit obligation is \$479,000. Fair value of its assets is \$3,238,000. The service cost for Year 6 is \$586,000.

CHECK

Predicted expense,
\$463 mil.

Required:

Predict General Energy Co.'s Year 7 net periodic pension expense given a 10% growth in service cost, the amortization of deferred loss over 30 years, and no change in the other assumed rates. Show calculations.

CASES

CASE 3-1

*Interpreting Pension and
OPEB Disclosures*

Refer to Colgate's annual report in Appendix A at the end of the book and answer the following questions:

Colgate

- What type of pension plan does Colgate have for a majority of its employees? What are the primary other postretirement benefits (OPEBs) that Colgate offers its employees?
- Separately for pensions (U.S. and international) and OPEBs, answer the following questions for both 2006 and 2005:
 - What is the closing net economic position of the plan? Is it a net asset or net liability?
 - What is the closing amount reported in the balance sheet? Is it a net asset or net liability?

- (3) Where in the balance sheet are the reported amounts included?
- (4) For 2005, what causes the reported amounts to deviate from the net economic position?
- (5) Identify the amount of accumulated benefit obligation (ABO) and the projected benefit obligation (PBO). Which amount is recognized in the balance sheet? Which is closer to Colgate's legal obligation?
- (6) What is the net economic position of each plan if it is terminated?
- (7) What is the closing value of plan assets? Which asset classes does Colgate invest in and what proportions?
- (8) What is the reported benefit cost that is included in net income for the year? What are its components?
- (9) Identify and quantify the nonrecurring amounts that are deferred during the year.
- (10) What is Colgate's actual return on plan assets? How much does it recognize for the year (when determining reported benefit cost)?
- (11) Identify how the reported cost is articulated with the net position included in the balance sheet. (Hint: How are the net deferrals recognized—or not recognized—on the balance sheet?) What are the differences between 2005 and 2006?
- (12) What are the key actuarial assumptions that Colgate makes? Has Colgate changed any assumptions during 2006? What effects will the changes have on Colgate's economic and reported position and cost?
- (13) What is Colgate's cash flow with respect to postretirement plans? What is the estimated cash flow for 2007?

Refer to Colgate's Annual Report in Appendix A at the end of the book and answer the following questions:

Colgate

CASE 3-2

Analyzing Pensions and OPEBs

- a. Make necessary financial adjustments to reflect the net economic position of the pension and OPEB plans on the balance sheet and the economic benefit cost in income for 2006 and 2005. What effects do these adjustments have on the following ratios: (1) debt to equity, (2) long-term debt to equity, (3) ROE, and (4) ROA? Discuss the appropriate presentation (and recognition) of postretirement benefits on the balance sheet and in net income for different analysis objectives.
- b. Evaluate the reasonableness of the key actuarial assumptions made by Colgate in 2006 and 2005. Why are the assumptions different for domestic and international pension plans? What are the effects of changes in assumptions in 2006 on the financial statements?
- c. What is the nature of Colgate's risk exposure from its pension and OPEB plans? Quantify this risk, examining the extent of underfunding, pension (OPEB) intensity, and likely mismatch in the risk profiles of plan assets and obligation.
- d. Examine the nature of Colgate's contributions to the benefit plans. How useful are current contributions to estimate future contributions? Is it possible to estimate Colgate's cash flows with respect to its benefit plans in 2007 and thereafter?

Refer to the annual report of **Campbell Soup** in Appendix A.

Campbell Soup

CASE 3-3

Analyzing and Interpreting Liabilities

Required:

- a. Identify Campbell Soup's major categories of liabilities. Identify which of these liabilities require recognition of interest expense.
- b. Reconcile activity in the long-term borrowing account for Year 11.
- c. Describe the composition of Campbell Soup's long-term liabilities account using its note 19.

CASE 3-4*Analyzing and
Interpreting Equity*Refer to the annual report of **Campbell Soup** in Appendix A.**Campbell Soup***Required:*

- Determine the book value per share of Campbell Soup's common stock for Year 11.
- Identify the par value of Campbell Soup's common shares. Determine the number of common shares authorized, issued, and outstanding at the end of Year 11.
- Determine how many common shares Campbell Soup repurchased as treasury stock for Year 11. Determine the price at which Campbell Soup repurchased the shares.

CHECK

(c) Year 11 repurchase price, \$51.72

CASE 3-5*Leasing in the
Airline Industry*

The airline industry is one of the more volatile industries. During lean years in the early 1990s, the industry wiped out the earnings it had reported during its entire history. Pan American Airlines and Eastern Airlines ceased operations, while Continental Airlines, TWA, and US Air filed for bankruptcy protection. The industry bounced back in the mid-1990s, riding on the wings of the U.S. economic prosperity and lower energy prices. The airlines have been especially profitable since 1996, with returns on equity often in excess of 25%. The stock market has recognized the stellar growth in profitability as market capitalization of many airlines has tripled since then.

Volatility in airlines' earnings arises from a combination of demand volatility, cost structure, and competitive pricing. Air travel demand is cyclical and sensitive to the economy's performance. The cost structure of airlines is dominated by fixed costs, resulting in high operating leverage. While most airlines break even at 60% flight occupancy, deviations from this can send earnings soaring upward or downward. Also, the airline industry is price competitive. Because of their cost structure (low variable but high fixed costs), airlines tend to reduce fares to increase market share during a downturn in demand. These fare reductions often lead to price wars, which reduces average unit revenue. Hence, airfares are positively correlated with volume of demand, resulting in volatile revenues. When this revenue variability is combined with fixed costs, it yields volatile earnings.

Airline companies lease all types of assets—aircraft, airport terminal, maintenance facilities, property, and operating and office equipment. Lease terms range from less than a year to as much as 25 years. While many companies report some capital leases on the balance sheet, most companies are increasingly structuring their leases, long-term and short-term, as operating leases. The condensed balance sheets and income statements along with excerpts of lease notes from the 1998 and 1997 annual reports for **AMR (American Airlines)**, **Delta Airlines**, and **UAL (United Airlines)** follow.

	AMR		DELTA		UAL	
	1998	1997	1998	1997	1998	1997
Balance Sheets (\$ millions)						
Assets						
Current assets.....	\$ 4,875	\$ 4,986	\$ 3,362	\$ 2,867	\$ 2,908	\$ 2,948
Freehold assets (net).....	12,239	11,073	9,022	7,695	10,951	9,080
Leased assets (net).....	2,147	2,086	299	347	2,103	1,694
Intangibles and other.....	3,042	2,714	1,920	1,832	2,597	1,742
Total assets	\$22,303	\$20,859	\$14,603	\$12,741	\$18,559	\$15,464

	AMR		DELTA		UAL	
	1998	1997	1998	1997	1998	1997
Liabilities and equity						
Current liabilities						
Current portion of capital lease.....	\$ 154	\$ 135	\$ 63	\$ 62	\$ 176	\$ 171
Other current liabilities.....	5,485	5,437	4,514	4,021	5,492	5,077
Long-term liabilities						
Lease liability.....	1,764	1,629	249	322	2,113	1,679
Long-term debt.....	2,436	2,248	1,533	1,475	2,858	2,092
Other long-term liabilities.....	5,766	5,194	4,046	3,698	3,848	3,493
Preferred stock.....			175	156	791	615
Shareholder's equity						
Contributed capital.....	3,257	3,286	3,299	2,896	3,518	2,877
Retained earnings.....	4,729	3,415	1,776	812	1,024	300
Treasury stock.....	(1,288)	(485)	(1,052)	(701)	(1,261)	(840)
Total liabilities and equity.....	\$22,303	\$20,859	\$14,603	\$12,741	\$18,559	\$15,464
Income Statement (\$ millions)						
Operating revenue.....	\$19,205	\$18,184	\$14,138	\$13,594	\$17,561	\$17,378
Operating expenses.....	(16,867)	(16,277)	(12,445)	(12,063)	(16,083)	(16,119)
Operating income.....	2,338	1,907	1,693	1,531	1,478	1,259
Other income and adjustments.....	198	137	141	91	133	551
Interest expense*.....	(372)	(420)	(197)	(216)	(361)	(291)
Income before tax.....	2,164	1,624	1,637	1,406	1,250	1,519
Tax provision.....	(858)	(651)	(647)	(561)	(429)	(561)
Continuing income.....	\$ 1,306	\$ 973	\$ 990	\$ 845	\$ 821	\$ 958

*Includes preference dividends.

(\$ millions)	AMR		DELTA		UAL	
	Capital	Operating	Capital	Operating	Capital	Operating
Excerpts from Lease Notes (1998)						
MLP Due						
1999.....	\$ 273	\$ 1,012	\$100	\$ 950	\$ 317	\$ 1,320
2000.....	341	951	67	950	308	1,329
2001.....	323	949	57	940	399	1,304
2002.....	274	904	57	960	341	1,274
2003.....	191	919	48	960	242	1,305
2004.....	1,261	12,480	71	10,360	1,759	17,266
Total MLP due.....	2,663	\$17,215	400	\$15,120	3,366	\$23,798
Less interest.....	(745)		(88)		(1,077)	
Present value of MLP.....	\$1,918		\$312		\$2,289	

(\$ millions)	AMR		DELTA		UAL	
	Capital	Operating	Capital	Operating	Capital	Operating
Excerpts from Lease Notes (1997)						
MLP Due						
1998.....	\$ 255	\$ 1,011	\$101	\$ 860	\$ 288	\$ 1,419
1999.....	250	985	100	860	262	1,395
2000.....	315	935	68	840	241	1,402
2001.....	297	931	57	830	314	1,380
2002.....	247	887	57	850	277	1,357
2003 and after.....	1,206	13,366	118	9,780	1,321	19,562
Total MLP due.....	2,570	\$18,115	501	\$14,020	2,703	\$26,515
Less interest.....	(806)		(117)		(853)	
Present value of MLP.....	\$1,764		\$384		\$1,850	

Both the capital and operating leases are noncancellable. Interest rates on the leases vary from 5% to 14%. (Assume a 35% marginal tax rate for all three companies.)

Required:

- Compute key liquidity, solvency, and return on investment ratios for 1998 (current ratio, total debt to equity, long-term debt to equity, times interest earned, return on assets, return on equity). Comment on the financial performance, financial position, and risk of these three companies—both as a group and individually.
- To understand the effect of high operating leverage on the volatility of airlines' earnings, prepare the following sensitivity analysis: Assume that 25% of airline costs are variable—that is, for a 1% increase (decrease) in operating revenues operating costs increase (decrease) by only 0.25%. Recast the income statement assuming operating revenues decrease by two alternative amounts: 5% and 10%. What happens to earnings at these reduced revenue levels? Also, compute key ratios at these hypothetical revenue levels. Comment on the risk of these companies' operations.
- Why do you think the airline industry relies so heavily on leasing as a form of financing? What other financing options could airlines consider? Discuss their advantages and disadvantages versus leasing.
- Examine the lease notes. Do you think the lease classification adopted by the companies is reasonable? Explain.
- Reclassify all operating leases as capital leases and make necessary adjustments to both the balance sheet and income statement for 1998. [Hint: (1) Use the procedures described in the chapter. (2) Assume identical interest rates for operating and capital leases. (3) Do not attempt to articulate the income statement with the balance sheet, i.e., make balance sheet and income statement adjustments separately without "tallying" the effects on the two statements. (4) Make adjustments to the tax provision using a 35% marginal tax rate. Since all leases are accounted for as operating leases for tax purposes, converting operating leases to capital leases will create deferred tax liabilities. However, since we are not articulating the income statement with the balance sheet, the deferred tax effects on the balance sheet can be ignored.]
- What assumptions did you make when reclassifying leases in (e)? Evaluate the reasonableness of these assumptions and suggest alternative methods you could use to improve the reliability of your analysis.
- Repeat the ratio analysis in (a) using the restated financial statements from (e). Comment on the effect of the lease classification for the ratios and your interpretation of the companies' profitability and risk (both collectively and individually).
- Using the results of your analysis in (g), explain the reliance of airline companies on lease financing and their lease classifications. What conclusions can you draw about the importance of accounting analysis for financial analysis in this case?

It is recommended that this case is solved using Excel. Case data in Excel format is available on the book's website.

CHECK

(e) AMR restated Year 8 continuing income, \$1,210

Condensed financial statements of **General Electric**, along with note information regarding postretirement benefits, are shown here:

General Electric**CASE 3-6**

*Analyzing Post
Retirement Benefits*

INCOME STATEMENTS				BALANCE SHEETS		
(\$ millions)	1998	1997	1996		1998	1997
Revenues	\$100,469	\$90,840	\$79,179	Assets		
Cost of goods and services	(42,280)	(40,088)	(34,591)	Current assets.....	\$243,662	\$212,755
Interest, insurance, and financing.....	(20,970)	(18,083)	(15,615)	Plant assets	35,730	32,316
Other expenses	(23,477)	(21,250)	(17,898)	Intangible assets	23,635	19,121
Minority interest.....	(265)	(240)	(269)	Other	52,908	39,820
Earnings before tax.....	13,477	11,179	10,806	Total assets.....	<u>\$355,935</u>	<u>\$304,012</u>
Tax provision.....	(4,181)	(2,976)	(3,526)	Liabilities and Equity		
Net earnings	<u>\$ 9,296</u>	<u>\$ 8,203</u>	<u>\$ 7,280</u>	Current liabilities	\$141,579	\$120,667
				Long-term borrowing.....	59,663	46,603
				Other liabilities	111,538	98,621
				Minority interest.....	4,275	3,683
				Equity share capital.....	7,402	5,028
				Retained earnings.....	31,478	29,410
				Total liabilities and equity.....	<u>\$355,935</u>	<u>\$304,012</u>

POSTRETIREMENT BENEFITS—NOTES

(\$ millions)	PENSION BENEFITS			RETIREE HEALTH AND LIFE BENEFITS		
	1998	1997	1996	1998	1997	1996
Effect on Operations						
Expected return on plan assets	\$ 3,024	\$ 2,721	\$2,587	\$ 149	\$ 137	\$ 132
Service cost for benefits earned	(625)	(596)	(550)	(96)	(107)	(93)
Interest cost on benefit obligation.....	(1,749)	(1,686)	(1,593)	(319)	(299)	(272)
Prior service cost	(153)	(145)	(99)	(8)	11	31
SFAS 87 "transition gain".....	154	154	154	—	—	—
Net actuarial gain recognized	365	295	210	(39)	(32)	(43)
Special early retirement cost.....	—	(412)	—	—	(165)	—
Post retirement benefit income/(cost).....	<u>\$ 1,016</u>	<u>\$ 331</u>	<u>\$ 709</u>	<u>\$ (313)</u>	<u>\$ (455)</u>	<u>\$(245)</u>
Benefit Obligation (as of Dec. 31)						
Balance at January 1.....	\$25,874	\$23,251		\$ 4,775	\$ 3,954	
Service cost for benefits earned	625	596		96	107	
Interest cost on benefit obligation.....	1,749	1,686		319	299	
Participant contributions	112	120		24	21	
Plan amendments	—	136		—	369	
Actuarial loss	1,050	1,388		268	301	
Benefits paid.....	(1,838)	(1,715)		(475)	(441)	
Special early retirement cost.....	—	412		—	165	
Balance at Dec. 31.....	<u>\$27,572</u>	<u>\$25,874</u>		<u>\$ 5,007</u>	<u>\$ 4,775</u>	

(\$ millions)	PENSION BENEFITS			RETIREE HEALTH AND LIFE BENEFITS		
	1998	1997	1996	1998	1997	1996
Fair Value of Plan Assets (as of Dec. 31)						
Balance at January 1	\$38,742	\$33,686		\$ 1,917	\$ 1,682	
Actual return on plan assets.....	6,363	6,587		316	343	
Employer contributions	68	64		339	312	
Participant contributions.....	112	120		24	21	
Benefits paid	(1,838)	(1,715)		(475)	(441)	
Balance at Dec. 31	<u>\$43,447</u>	<u>\$38,742</u>		<u>\$ 2,121</u>	<u>\$ 1,917</u>	
Prepaid Pension Asset (as of Dec. 31)						
Fair value of plan assets	\$43,447	\$38,742		\$ 2,121	\$ 1,917	
Add/deduct unrecognized balances:						
SFAS 87 transition gain	(308)	(462)		—	—	
Net actuarial gain	(9,462)	(7,538)		358	296	
Prior service cost.....	850	1,003		108	116	
Benefit obligation	(27,572)	(25,874)		(5,007)	(4,775)	
Pension liability	797	703		—	—	
Prepaid pension asset	<u>\$ 7,752</u>	<u>\$ 6,574</u>		<u>\$(2,420)</u>	<u>\$(2,446)</u>	
Actuarial Assumptions (as of Dec. 31)						
Discount rate	6.75%	7.00%	7.50%	6.75%	7.00%	7.50%
Compensation increase	5.00	4.50	4.50	5.00	4.50	4.50
Return on assets.....	9.50	9.50	9.50	9.50	9.50	9.50
Health care cost trend				7.80	7.80	8.00

Note that this postretirement data was reported under the older standard (*SFAS 87*). The recognition of net position on the balance sheet under the current standard (*SFAS 158*) is different.

CHECK

Restated Year 8 D/E and ROE are 6.0 and 18.29%

Required:

- Determine the economic position of the postretirement plans for each of 1998 and 1997. Restate the balance sheets and examine the effect of reflecting the true position on key ratios (debt to equity, long-term debt to equity, return on equity).
- What is economic pension cost for each of 1998 and 1997? Reconcile it with the reported pension expense. Determine the pension expense you would consider when determining GE's permanent income and economic income.
- Examine how the current accounting (under *SFAS 158*) would recognize and report the provided pension and OPEB numbers. In particular, discuss how the net economic position will be featured in the balance sheet with specific reference to how the balance sheet numbers will be articulated with that recognized in the income statement (periodic net benefit cost).
- Evaluate the key actuarial assumptions. Is there any hint of earnings management?
- In its editorial, *Barron's* hinted GE was using pensions to manage its earnings growth:

In 1997, pension income chipped in \$331 million of GE's total earnings of \$8.2 billion. In 1998, pension income accounted for \$1.01 billion of the company's total earnings of \$9.3 billion. Okay, let's suppose that there was no contribution to earnings in either years (these are not, in any case, actual cash additions). Minus the noncash contributions from the pension plans, GE's 1997 net was \$7.9 billion; its 1998 net amounted to \$8.3 billion. On this basis, the rise in earnings last year was roughly \$400 million, or about 5.1%. And 5.1%, while respectable, is a good cut below the 13% the company triumphantly announced . . . GE's shares, as we observed, are selling at some 40 times last year's earnings.

- Do you agree with *Barron's* editorial? In what manner, if any, might GE be managing its earnings through pensions?
- f. Note the reference to cash flows in the *Barron's* editorial—"these are not, in any case, actual cash additions." Is it true that every earnings effect that does not necessarily have an equal and contemporaneous cash flow effect is tainted in some manner? Answer this question with respect to GE's pension disclosures. What are the cash flows relating to GE's postretirement plans? How useful are these cash flows for understanding the economics of postretirement benefit plans—are they more meaningful than the pension expense (income) number?
- g. Evaluate GE's pension (and OPEB) risk exposure.

Much of the litigation against **Philip Morris** is related to exposure of persons to environmental tobacco smoke. This is addressed by Philip Morris in the following excerpts from its Year 8 annual report:

CASE 3-7

Analysis of Contingent Liabilities—Philip Morris

Pending claims related to tobacco products generally fall within three categories: (i) smoking and health cases alleging personal injury brought on behalf of individual plaintiffs, (ii) smoking and health cases alleging personal injury and purporting to be brought on behalf of a class of individual plaintiffs, and (iii) health care cost recovery cases brought by governmental and non-governmental plaintiffs seeking reimbursement for health care expenditures allegedly caused by cigarette smoking. Governmental plaintiffs have included local, state, and certain foreign governmental entities. Non-governmental plaintiffs in these cases include union health and welfare trust funds, Blue Cross/Blue Shield groups, HMO's, hospitals, Native American tribes, taxpayers, and others. Damages claimed in some of the smoking and health class actions and health care cost recovery cases range into the billions of dollars. Plaintiffs' theories of recovery and the defenses raised in those cases are discussed below.

In recent years, there has been a substantial increase in the number of smoking and health cases being filed. As of December 31, Year 8, there were approximately 510 smoking and health cases filed and served on behalf of individual plaintiffs in the United States against PM Inc. and, in some cases, the Company, compared with approximately 375 such cases on December 31, Year 7, and 185 such cases on December 31, Year 6. Many of these cases are pending in Florida, West Virginia and New York. Fifteen of the individual cases involve allegations of various personal injuries allegedly related to exposure to environmental tobacco smoke ("ETS").

In addition, as of December 31, Year 8, there were approximately 60 smoking and health putative class actions pending in the United States against PM Inc. and, in some cases, the Company (including eight that involve allegations of various personal injuries related to exposure to ETS), compared with approximately 50 such cases on December 31, Year 7, and 20 such cases on December 31, Year 6. Most of these actions purport to constitute statewide class actions and were filed after May Year 6 when the Fifth Circuit Court of Appeals, in the *Castano* case, reversed a federal district court's certification of a purported nationwide class action on behalf of persons who were allegedly "addicted" to tobacco products.

During Year 7 and Year 8, PM Inc. and certain other United States tobacco product manufacturers entered into agreements settling the asserted and unasserted health care cost recovery and other claims of all 50 states and several commonwealths and territories of the United States. The settlements are in the process of being approved by the courts, and some of the settlements are being challenged by various third parties. As of December 31, Year 8, there were approximately 95 health care cost recovery actions pending in the United States (excluding the cases covered by the settlements), compared with approximately 105 health care cost recovery cases pending on December 31, Year 7, and 25 such cases on December 31, Year 6.

There are also a number of tobacco-related actions pending outside the United States against PMI and its affiliates and subsidiaries including, as of December 31, Year 8, approximately 27 smoking and health cases initiated by one or more individuals (Argentina (20), Brazil (1), Canada (1), Italy (1), Japan (1), Scotland (1) and Turkey (2)), and six smoking and health class actions (Brazil (2), Canada (3) and Nigeria (1)). In addition, health care cost recovery actions have been brought in Israel, the Republic of the Marshall Islands and British Columbia, Canada, and, in the United States, by the Republics of Bolivia, Guatemala, Panama and Nicaragua.

Pending and upcoming trials: As of January 22, Year 9, trials against PM Inc. and, in one case, the Company, were underway in the *Engle* smoking and health class action in Florida (discussed below) and in individual smoking and health cases in California and Tennessee. Additional cases are scheduled for trial during Year 9, including three health care cost recovery actions brought by unions in Ohio (February), Washington (September) and New York (September), and two smoking and health class actions in Illinois (August) and Alabama (August). Also, twelve individual smoking and health cases against PM Inc. and, in some cases, the Company, are currently scheduled for trial during Year 9. Trial dates, however, are subject to change.

Verdicts in individual cases: During the past three years, juries have returned verdicts for defendants in three individual smoking and health cases and in one individual ETS smoking and health case. In June Year 8, a Florida appeals court reversed a \$750,000 jury verdict awarded in August Year 6 against another United States cigarette manufacturer. Plaintiff is seeking an appeal of this ruling to the Florida Supreme Court. Also in June Year 8, a Florida jury awarded the estate of a deceased smoker in a smoking and health case against another United States cigarette manufacturer \$500,000 in compensatory damages, \$52,000 for medical expenses and \$450,000 in punitive damages. A Florida appeals court has ruled that this case was tried in the wrong venue and, accordingly, defendants are seeking to set aside the verdict and retry the case in the correct venue. In Brazil, a court in Year 7 awarded plaintiffs in a smoking and health case the Brazilian currency equivalent of \$81,000, attorneys' fees and a monthly annuity of 35 years equal to two-thirds of the deceased smoker's last monthly salary. Neither the Company nor its affiliates were parties to that action.

Litigation settlements: In November Year 8, PM Inc. and certain other United States tobacco product manufacturers entered into a Master Settlement Agreement (the "MSA") with 46 states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the United States Virgin Islands, American Samoa and the Northern Marianas to settle asserted and unasserted health care cost recovery and other claims. PM Inc. and certain other United States tobacco product manufacturers had previously settled similar claims brought by Mississippi, Florida, Texas and Minnesota (together with the MSA, the "State Settlement Agreements") and an ETS smoking and health class action brought on behalf of airline attendants. The State Settlement Agreements and certain ancillary agreements are filed as exhibits to various of the Company's reports filed with the Securities and Exchange Commission, and such agreements and the ETS settlement are discussed in detail therein.

PM Inc. recorded pre-tax charges of \$3,081 million and \$1,457 million during Year 8 and Year 7, respectively, to accrue for its share of all fixed and determinable portions of its obligations under the tobacco settlements, as well as \$300 million during Year 8 for its unconditional obligation under an agreement in principle to contribute to a tobacco growers trust fund, discussed below. As of December 31, Year 8, PM Inc. had accrued costs of its obligations under the settlements and to tobacco growers aggregating \$1,359 million, payable principally before the end of the year Year 10. The settlement agreements require that the domestic tobacco industry make substantial annual payments in the following amounts (excluding future annual payments contemplated by the agreement in principle with tobacco growers discussed below), subject to adjustment for several factors, including inflation, market share and industry volume: Year 9, \$4.2 billion (of which \$2.7 billion related to the MSA and has already been paid by the industry); Year 10, \$9.2 billion; Year 11, \$9.9 billion; Year 12, \$11.3 billion; Year 14 through Year 17, \$8.4 billion; and thereafter, \$9.4 billion. In addition, the domestic tobacco industry is required to pay settling plaintiff's attorneys' fees, subject to an annual cap of \$500 million, as well as additional amounts as follows: Year 9, \$450 million; Year 10, \$416 million; and Year 11 through Year 12, \$250 million. These payment obligations are the several and not joint obligations of each settling defendant. PM Inc.'s portion of the future adjusted payments and legal fees, which is not currently estimable, will be based on its share of domestic cigarette shipments in the year preceding that in which the payment is made. PM Inc.'s shipment share in Year 8 was approximately 50%.

The State Settlement Agreements also include provisions relating to advertising and marketing restrictions, public disclosure of certain industry documents, limitations on challenges to tobacco control and underage use laws and other provisions. As of January 22, Year 9, the MSA had been approved by courts in 41 states and in the District of Columbia, Puerto Rico, Guam, the United States Virgin Islands, American Samoa and Northern Marianas. If a

jurisdiction does not obtain final judicial approval of the MSA by December 31, Year 11, the agreement will be terminated with respect to such jurisdiction.

As part of the MSA, the settling defendants committed to work cooperatively with the tobacco grower community to address concerns about the potential adverse economic impact of the MSA on that community. To that end, in January Year 9, the four major domestic tobacco product manufacturers, including PM Inc., agreed in principle to participate in the establishment of a \$5.15 billion trust fund to be administered by the tobacco growing states. It is currently contemplated that the trust will be funded by industry participants over twelve years, beginning in Year 9. PM Inc. has agreed to pay \$300 million into the trust in Year 9, which amount has been charged to Year 8 operating income. Subsequent annual industry payments are to be adjusted for several factors, including inflation and United States cigarette consumption, and are to be allocated based on each manufacturer's market share.

The Company believes that the State Settlement Agreements may materially adversely affect the business, volume, results of operations, cash flows or financial position of PM Inc. and the Company in future years. The degree of the adverse impact will depend, among other things, on the rates of decline in United States cigarette sales in the premium and discount segments, PM Inc.'s share of the domestic premium and discount cigarette segments, and the effect of any resulting cost advantage of manufacturers not subject to the MSA and the other State Settlement Agreements. As of January 22, Year 9, manufacturers representing almost all domestic shipments in Year 8 had agreed to become subject to the terms of the MSA.

Required:

- a. Philip Morris classifies pending tobacco lawsuits against the company into three general categories. What are these three categories? What is the number of claims for each of these categories at the end of Year 8?
- b. Can you determine how much liability is recorded for each of these categories as of December 31, Year 8? Explain.
- c. Can you determine what amount is charged against earnings in Year 8 for contingent tobacco litigation losses? Explain.
- d. Do you believe the eventual losses will exceed the losses currently recorded on the balance sheet? Explain.
- e. Describe adjustments to PM's financial statements, and to an investor's financial analysis of PM, to reflect estimates of under- or overaccrued losses.