PART 4



Liabilities and Shareholders' Equity: A Closer Look

In December 2009, The New York Times Company issued a very upbeat outlook for its business prospects, despite the lingering effects of the 2008–2009 recession and the tidal wave of change undermining the company's traditional print media business model. Print media advertising revenue for the *Times* was down 25 percent in the fourth quarter of 2009, and media industry experts talked of nothing except the Internet and technology's inevitable victory over newspapers and other traditional print media outlets. The New York Times Company, however, was optimistic in its outlook, citing digital and online advertising revenue growth, circulation revenue growth, and a more efficient cost structure. Playing a large role in the company's brightened, forward-looking statement was the change to its capital structure: The company had less debt and relatively more equity than in previous periods. Specifically, the company's CEO was quoted as saying, "We have made significant progress in reducing our debt level, with total debt expected to be approximately \$800 million at year-end . . . down from \$1.1 billion at the end of 2008." With such competitive forces aligned against the company, do you think its CEO is justified in her optimism with less debt and more equity? Why does the structure of a company's financing affect its future prospects? How do analysts incorporate debt and equity levels into their evaluation of a company's past and future performance? The next three chapters—10, 11, and 12—describe the components of a company's capital structure, helping to explain the logic behind the New York Times' positive outlook.

CHAPTER 10

Introduction to Liabilities: Economic Consequences, Current Liabilities, and Contingencies

CHAPTER 11

Long-Term Liabilities: Notes, Bonds, and Leases

CHAPTER 12

Shareholders' Equity

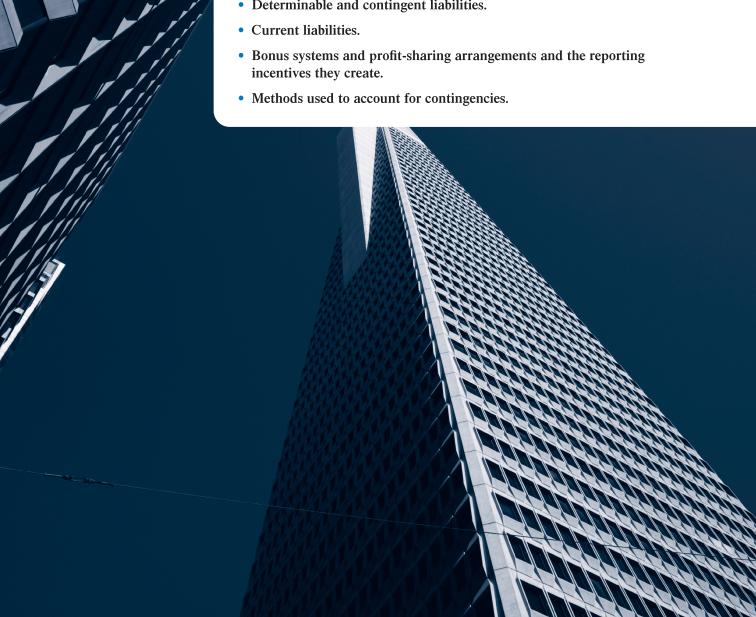
CHAPTER 10

Introduction to Liabilities: Economic Consequences, Current Liabilities, and Contingencies

POINTS

The following key points are emphasized in this chapter:

- Definition of a liability.
- Economic consequences associated with reporting liabilities on the financial statements.
- Determinable and contingent liabilities.



Waste companies have great latitude in setting reserves (liabilities) for future environmental costs at their dumps. The process involves estimating how high the costs will be thirty years or more in the future and calculating how big a fund is needed in today's dollars to satisfy the future obligation. For example, Waste Management Inc., previously accused of using aggressive accounting methods, once recorded a \$173.3 million cost that lowered its third-quarter profit by 63 percent. The cost included \$45 million to boost cleanup reserves for some dumps, \$26 million to increase reserves for litigation, and \$72.3 million to boost reserves for future claims. Does anybody really know how large the liability should be? This example illustrates the difficulties involved in measuring liabilities, the topic of Chapters 10 and 11.

Liabilities, defined as obligations of a company to disburse assets or provide services in the future, are divided on the balance sheet into two categories: current liabilities and long-term liabilities. Current liabilities include primarily short-term payables to suppliers, employees, banks, and others. Long-term liabilities relate to long-term notes, bonds, leases, retirement costs, and deferred income taxes. This chapter introduces liabilities in general and covers the methods used to account for current liabilities and contingent liabilities, which can be either current or long-term. Accounting for retirement costs and deferred income taxes is briefly reviewed in Appendices 10A and 10B, respectively. Chapter 11 is devoted to long-term notes, bonds, and leases. These three liabilities are covered in a single chapter because the same basic method, called the *effective interest method*, is used to account for them.



While a few relatively subtle differences exist between IFRS and U.S. GAAP accounting for liabilities, for the most part the two systems are quite similar.

WHAT IS A LIABILITY?

The FASB has defined liabilities as "probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events." The board commented further that all liabilities appearing on the balance sheet should have three characteristics in common: (1) They should be present obligations that entail settlements by probable future transfers or uses of cash, goods, or services; (2) they should be unavoidable obligations; and (3) the transaction or event obligating the enterprise must have already happened. ¹

While the FASB's definition makes the measurement of most liabilities relatively straightforward, the liabilities listed on the balance sheet do encompass a wide variety of items, including credit balances with suppliers, debts from borrowings, services yet to be performed, withholdings from employees' wages and salaries, dividend declarations, product warranties, deferred income taxes, and a number of complex financing arrangements. As we will discuss later, there is some question whether all these items are liabilities in an economic sense as well as whether all the economic liabilities of a company are included on its balance sheet.

^{1.} Financial Accounting Standards Board (FASB), "Elements of Financial Statements of Business Enterprises," *Statement of Financial Accounting Concepts No. 3* (Stamford, Conn.: FASB, 1980), pars. 28 and 29.



In its 2009 annual report, FedEx reported that it leased certain of its fixed assets. The contracts associated with those leases specified that \$1.8 billion would have to be paid by the company in 2010. Yet this amount was not included in the liabilities listed on FedEx's balance sheet. Review the criteria for recognizing a liability and consider whether FedEx's accounting treatment was appropriate.

THE RELATIVE SIZE OF LIABILITIES ON THE BALANCE SHEET

Figure 10–1 contains liabilities as a percentage of total assets, often referred to as the **debt ratio**, for selected firms. The main financing source for financial institutions is clearly debt. Customer demand deposits and short-term debt are primarily responsible. General Electric's financial subsidiary, which is set up to provide financing to its customers on big-ticket sales, is basically a financial institution, accounting for GE's large debt ratio. Companies like AT&T and Kroger invest heavily in property, plant, and equipment that is financed through debt, while Internet firms have generated most of their financing by issuing equity.

FIGURE 10-1 Liabilities as a percentage of total assets

	Liabilities/ Total Assets
Manufacturing:	
General Electric (manufacturer)	0.87
Chevron (oil drilling and refining)	0.46
Retail:	
Kroger (grocery retail)	0.78
Lowe's (hardware retail)	0.45
Internet:	
Yahoo! (Internet search engine)	0.22
Cisco (Internet systems)	0.43
General services:	
AT&T (telecommunications services)	0.64
Wendy's/Arby's (restaurant services)	0.49
Financial services:	
Bank of America (banking services)	0.90
Goldman Sachs (investment services)	0.93



Internet companies like Yahoo! and Google carry very little debt on their balance sheets, while large manufacturers like Kimberly-Clark and General Electric have debt amounts that are well over 50 percent of total assets. Comment on why such differences might exist.

REPORTING LIABILITIES ON THE BALANCE SHEET: ECONOMIC CONSEQUENCES

The reported values of liabilities affect important financial ratios that shareholders, investors, creditors, and others use to assess management's performance and a company's financial condition. Seven of Dun & Bradstreet's fourteen key business ratios, for example, directly include a measure of liabilities: (1) quick ratio ([cash + marketable securities + receivables]/current liabilities), (2) current ratio (current assets/current liabilities), (3) current liabilities/net worth, (4) current liabilities/inventory, (5) total liabilities/net worth, (6) sales/net working capital, and (7) accounts payable/sales. These ratios and others that include liability measures are used by interested outside parties to determine credit ratings, assess solvency and future cash flows, predict bankruptcy, and, in general, assess the financial health of an enterprise. In addition to using liability measures to evaluate the future prospects of a firm, shareholders, investors, creditors, and managers are interested in the reported values of liabilities for other important reasons, several of which are discussed in the following paragraphs.

Shareholders and Investors

Debt financing can be very valuable to shareholders because funds generated by borrowing can be used to generate returns that exceed the cost of the debt. Since interest is tax deductible (reducing the cost of debt), this strategy (called leverage) is very common. However, shareholders and investors must pay close attention to the amount of liabilities and the contracts that underlie them because debt increases the riskiness of the company. Interest payments must be met before dividends can be distributed, and, in the event of liquidation, outstanding payables must be satisfied before shareholders are paid. Many loan contracts restrict the amount of dividends that can be paid in any one year to the common shareholders. For example, The Boeing Company, an aircraft manufacturer, operates under debt covenants that restrict the payment of dividends and other distributions on the company's stock. As of December 31, 2008, Boeing reported that it is in full compliance with these covenants.

Creditors

The creditors of a company have a special interest in the liabilities held by others. These liabilities compete for the resources that must be used to satisfy the obligations owed to them. Creditors often protect their interests by writing terms in loan contracts that require collateral in the case of default or that restrict a company's future borrowings. The 2008 annual report of engine manufacturer Cummins, Inc. contained the following excerpt, which describes the debt covenants imposed by its bank lenders:

Our debt agreements contain several restrictive covenants. The most restrictive of these covenants applies to our revolving credit facility which will, among other things, limit our ability to incur additional debt or issue preferred stock, enter into sale-leaseback transactions, pay dividends, sell or create liens on our assets, make investments and merge or consolidate with any other person. In addition, we are subject to various financial covenants including a maximum debt-to-EBITDA ratio and a minimum interest coverage ratio. As of December 31, 2008, we were in compliance with all of the covenants under our borrowing agreements.

Management

Management views short- and long-term borrowings and the related liabilities as important sources of cash for operating, investing, and financing activities. An article in *Forbes* stated: "Most companies spend lots of time figuring out when and how to borrow money. That makes sense. Proper timing of debt can save millions in interest payments." The bankruptcy of CIT Group was in large part due to its inability to borrow funds for its lending operations.

On its 2008 balance sheet, for example, General Electric disclosed about \$693 billion of outstanding liabilities, representing almost 87 percent of its financing sources. That amount is a significant sum that requires astute and careful management to ensure that sufficient cash is on hand to meet the required payments as they come due. In 2008 alone, General Electric paid approximately \$26 billion in interest to service its outstanding debt. Effective management of such debt is critical to a company's success and can be used to great advantage. As noted earlier, practicing leverage is a very popular strategy.

While management often chooses to rely on borrowings for its financial needs, it has incentives to understate liabilities on the balance sheet. Indeed, a well-known article in *Forbes* began: "The basic drives of man are few: to get enough food, to find shelter, and to keep debt off the balance sheet."

Additional debt on the balance sheet, for example, can reduce a company's credit rating, making it increasingly difficult to attract capital in the future. On June 25, 2009, Standard & Poor's Corp., an established credit-rating service, lowered the credit rating of aerospace company Moog, Inc. because the company had increased its debt levels due to a series of acquisitions. In reaction to Standard & Poor's announcement, the market price of the company's outstanding stock immediately dropped.

Additional debt on the balance sheet can also decrease the current ratio, increase the debt/asset ratio, and increase the debt/equity ratio. Such changes could cause a company to violate its debt covenants and, in general, cause it to be viewed as more risky by outside investors and creditors. The national director of accounting and auditing at Seidman & Seidman, for example, points out: "Removing large amounts of debt can present a more favorable impression of debt-to-equity ratios, working capital ratios, and the returns on assets invested in the business."

There are also situations, however, when management may wish to accelerate the recognition of liabilities, booking them in a current instead of a future period. For example, by reporting additional liabilities in the current period, management may be able to report higher net income amounts in future periods. Such a reporting strategy is not unusual for companies that are experiencing exceptionally poor years as well as for those experiencing exceptionally good years.

While in the midst of bankruptcy proceedings, for example, LTV Corporation "took a bath" by accruing a number of significant liabilities, none of which were required at the time by generally accepted accounting principles. A spokesman for LTV was quoted in the *Wall Street Journal* as saying:

[The company] took the special charges because it believes it should record all its liabilities while in [bankruptcy] proceedings. It's a unique opportunity for us to take it at a time when it does the least harm. . . . LTV likely wants a fresh start when it emerges from bankruptcy-law proceedings.

Companies experiencing exceptionally good years may also choose to accrue additional liabilities. The article just cited also pointed out that a number of companies "with strong equity positions" may wish to take early recognition of certain liabilities

and, in effect, "bite the bullet early." This reporting strategy, called "building hidden reserves," recognizes losses in a year when they will be overwhelmed by other items of income. It also avoids having to recognize the losses in later years that may not be so exceptional. Both General Electric and Microsoft have been cited for managing earnings through hidden reserves.



For years a tradition of conservative reporting has existed in Europe, and this conservatism often manifests itself through the subjective creation of liabilities, or "provisions" as they are often called.

Auditors

Auditors must attest that all liabilities are identified and properly reported on the balance sheet. Auditors are particularly careful in this area because significant unreported liabilities may lead to future investor and creditor losses for which auditors may be held liable. For example, the auditors for Bethlehem Steel cautiously noted in their report on the company's 2003 financial statements: "The continuation of the company as a going concern is contingent upon . . . the company's ability to comply with all debt covenants . . . and Bethlehem's ability to generate sufficient cash from operations and obtain financing sources to meet its future obligations." In the well-known Enron fraud, the demise of Arthur Andersen, Enron's auditor, was linked to billions of dollars of unreported Enron liabilities.



In two successive years, Motorola recorded charges against income for reorganization and other expenses of \$4 billion and \$2.6 billion, respectively. In those two years the company posted net losses of \$3.9 billion and \$2.5 billion. The following year the company bounced back, reporting a profit of \$893 million, and noted in the annual report that a significant amount of the prior reorganization charges had not led to cash payments. What earnings management strategy might Motorola be practicing, and why should investors be concerned?

CURRENT LIABILITIES

Current liabilities are obligations expected to require the use of current assets or the creation of other current liabilities. They normally include obligations to suppliers (accounts payable), short-term debts, current maturities on long-term debts, dividends payable to shareholders, deferred revenues (services or goods yet to be performed or delivered that are expected to require the use of current assets), third-party collections (e.g., sales tax and payroll deductions), periodic accruals (e.g., wages and interest), and potential obligations related to pending or threatened litigation, product warranties, and guarantees.

Note that current liabilities are defined in terms of obligations "expected to require the use of current assets." Thus, reported obligations that are not expected to require the use of current assets are not disclosed as current. For example, an obligation due within a year may not be disclosed in the current liabilities section if it is either (1) expected to

be paid from assets that are presently listed as noncurrent or (2) expected to be replaced (refinanced) with a long-term liability or equity issuance. Such obligations would normally be disclosed as long-term.



An annual report for Manpower, Inc. stated, "Commercial paper borrowings . . . have been classified as long-term debt due to our intent and ability to refinance them on a long-term basis." An annual report of PepsiCo similarly states, "Short-term borrowings are reclassified to long-term when we have the intent and ability, through the existence of unused lines of credit, to refinance these borrowings on a long-term basis." How can these two companies classify debt with a short-term maturity as long-term?

The Relative Size of Current Liabilities on the Balance Sheet

Figure 10–2 shows that current liabilities are the main liabilities of financial institutions. As indicated earlier, customer demand deposits are the primary reason. Figure 10–1 indicated that Internet firms rely very little on debt, and in Figure 10–2 we see that the majority is current. In other words, Internet firms have relatively little long-term debt. AT&T, Chevron, and GE carry relatively small amounts of current liabilities, choosing to create their leverage with long-term debt. AT&T and Chevron also carry relatively large investments in property, plant, and equipment.



Current liabilities as a percentage of total liabilities for the Bank of New York and AT&T are approximately 92 percent and 25 percent, respectively. Explain why these two companies carry such different levels of current liabilities.

FIGURE 10-2
Current liabilities
as a percentage
of total liabilities

	Current Liabilities/ Total Liabilities
Manufacturing:	
General Electric (manufacturer)	0.36
Chevron (oil drilling and refining)	0.43
Retail:	
Kroger (grocery retail)	0.42
Lowe's (hardware retail)	0.55
Internet:	
Yahoo! (Internet search engine)	0.85
Cisco (Internet systems)	0.46
General services:	
AT&T (telecommunications services)	0.25
Wendy's/Arby's (restaurant services)	0.22
Financial services:	
Bank of America (banking services)	0.82
Goldman Sachs (investment services)	0.79

Valuing Current Liabilities on the Balance Sheet

Most liabilities involve future cash outflows that are specified by formal contract or informal agreement. They can therefore be predicted objectively, and present value methods can be used to value liabilities on the balance sheet. In the case of current liabilities, however, the time period until payment is relatively short and the difference between the **face value** (actual cash payment when the liability is due) of the liability and its present value (discounted future cash payment) is considered to be immaterial. Thus, in the interest of materiality, current liabilities are usually recorded on the balance sheet at face value.

Reporting Current Liabilities: An Economic Consequence

In most cases, the face value of a current liability is easy to determine, and balance sheet valuation is straightforward. The primary problem is one of discovery, ensuring that all existing current liabilities are reported on the balance sheet. Failure to discover and report an existing current liability misstates the financial statements and any of the financial measures that include current liabilities. Two particularly important financial measures are the current ratio and working capital, which help investors and creditors to assess a company's solvency position because they match current obligations against the assets on hand to satisfy them. These ratios are frequently found in loan contracts, such as those disclosed in the 2006 annual report of John B. Sanfilippo & Son Inc. The company was required to maintain a minimum amount of working capital; as of May 8, 2007, the company reported that it had violated the financial covenant and, if it failed to receive approval from its current lenders, would have to seek alternate financing.

Such debt restrictions can discourage management from reporting current liabilities on the balance sheet. Consider, for example, JFP Company, which borrows \$1 million from Thrift Bank. The loan contract states that the loan is in default if JFP's current ratio, as reported on the balance sheet, dips below 2:1. Defaulting on this loan could mean that JFP must immediately pay the outstanding balance; in most cases, however, the company would be forced to renegotiate the terms of the loan with Thrift Bank. Such renegotiations would probably require that JFP make costly concessions, normally in the form of less desirable loan terms (e.g., higher interest rates, additional collateral).

At year-end, JFP's accountants determine that current assets equal \$100,000. If current liabilities are determined to be \$50,000 or less, the current ratio will be at least 2:1, and the loan will not be in default. On the other hand, if current liabilities are determined to be greater than \$50,000, the current ratio would dip below 2:1, and JFP would be in violation of the loan contract, which could lead to serious financial problems.

If JFP's management fails, either intentionally or unintentionally, to report a given current liability on the balance sheet, it can avoid violating the terms of the loan contract and the related consequences. Management, therefore, has an incentive either to ignore existing current liabilities, postpone them, or structure transactions so that current liabilities do not have to be recorded. Auditors must make special efforts to ensure that all existing current liabilities are properly reported on the balance sheet, and financial statement users must be aware of these management incentives.



For many years the frequent-flyer programs offered by the major airlines have allowed customers to build up future flying credits—thus creating a liability for the airlines. That is, the airlines must provide free seats for its frequent flyers. Airlines now accrue current liabilities for these credits, but for many years they argued that it was unnecessary. Describe some of the economic consequences the airlines may have been trying to avoid by not accruing these liabilities.

DETERMINABLE CURRENT LIABILITIES

Determining the dollar amounts of all current liabilities, because they represent probable future outlays, involves an element of uncertainty. The relative degree of uncertainty gives rise to two current liability categories: (1) determinable and (2) contingent. Determining the dollar amount of a determinable current liability is relatively straightforward; determining the dollar amount of a contingent liability involves an estimate. Figure 10–3 provides an outline of the current liabilities covered in the next two sections.

FIGURE 10-3
Outline of current liabilities

Determinable current liabilities

- A. Accounts payable
- B. Short-term debts
 - 1. Short-term notes
 - 2. Current maturities of long-term debts
- C. Dividends payable
- D. Unearned revenues
- E. Third-party collections
- F. Income taxes
- G. Incentive compensation

Contingent liabilities

- A. Lawsuits
- B. Warranties

In general, **determinable current liabilities** can be precisely measured, and the amount of cash needed to satisfy the obligation and the date of payment are reasonably certain. Determinable current liabilities include accounts payable, short-term debts, dividends payable, unearned revenues, third-party collections, and accrued liabilities.

Accounts Payable

Accounts payable are dollar amounts owed to others for goods, supplies, and services purchased on **open account.**² They arise from frequent transactions that are normally not subject to specific, formal contracts between a company and its suppliers. These extensions of credit are the practical result of a time lag between the receipt of a good, supply, or service and the corresponding payment. The time period is usually short (e.g., thirty to sixty days) and is indicated by the terms of the exchange (e.g., 2/10, n/30).



In the operating section of Target Corporation's 2008 statement of cash flows, a change in accounts payable of \$389 million was subtracted from net earnings in the calculation of cash flow provided by operations. Did the accounts payable balance increase or decrease during 2008, and why is the change subtracted from net earnings?

Accounts payable are usually associated with inventory purchases, which were discussed in Chapter 7, and a Dun & Bradstreet survey found that accounts payable are the most popular source of financing for small business owners. The size of the balance in accounts payable can be an important indicator of a company's financial condition,

^{2.} Accounts payable are sometimes referred to as *trade accounts payable. Accounting Trends and Techniques* (New York: AICPA, 2009) reports that 14 percent of the major U.S. companies surveyed used that phrase.

especially in the retail industry where suppliers are heavily relied upon to provide merchandise. The 1990 Christmas season for R.H. Macy, for example, did not produce sufficient revenues to cover the outstanding accounts owed to Macy's suppliers, which, in turn, delayed payments and caused the company's accounts payable balance to increase. Many financial analysts used this information to accurately predict that the company would soon declare bankruptcy. Robert Campeau, who built a retail empire in the 1980s, experienced similar problems prior to the empire's collapse in 1990. His companies paid suppliers so slowly that they ceased sending shipments.

Other companies use accounts payable as a source of financing, stretching the time to pay suppliers and using the cash for other purposes. Amazon.com's accounts payable turnover (in days), for example, rose from 49 in 2003 to almost 65 in 2009. Analysts following Amazon commented that this source of financing could not continue to grow very much before vendors would fight back and discontinue supplying the company.



JCPenney's accounts payable represent approximately 43 percent of its current liabilities, while the percentage for Biomet, a manufacturer in the medical industry, is only 16. Explain why accounts payable are so much more important for JCPenney.

Short-Term Debts

Short-term debts (or short-term borrowings) typically include short-term bank loans, commercial paper, lines of credit, and current maturities of long-term debt. **Commercial paper,** a popular means of providing short-term financing, represents short-term notes (30 to 270 days) issued for cash by companies with good credit ratings to other companies. A **line of credit** is usually granted to a company by a bank or group of banks, allowing it to borrow up to a certain maximum dollar amount, interest being charged only on the outstanding balance. Issued commercial paper and existing lines of credit are an indication of a company's ability to borrow funds on a short-term basis; thus, they are very important to investors and creditors who are interested in assessing solvency. Consequently, such financing arrangements are extensively described in the footnotes.

SHORT-TERM NOTES

Short-term notes usually arise from cash loans and are generally payable to banks or loan companies. In most cases, the life of a note is somewhere between thirty days and one year, and the bank or loan company lends the borrowing company less cash than is indicated on the face of the note. At the **maturity date** (when the loan is due), the borrowing company pays the lending institution the face amount of the note, and the difference between the face amount and the amount of the loan is treated as interest.

For example, suppose that on January 1, Freight Line Industries borrows \$9,400 from Commercial Loan Company and signs a six-month note with a face amount of \$10,000. The journal entry to record this transaction is provided below.

Cash (+A) 9,400
Discount on Notes Payable (-L) 600
Notes Payable (+L) 10,000
Issued short-term note payable

The discount on notes payable account serves as a contra account to notes payable on the balance sheet and represents interest that is not yet owed but will be recognized in the future. Assuming that financial statements are prepared monthly, one-sixth of the discount would be converted to interest expense each month by an adjusting entry of the following form:

Interest Expense (E, -RE)

Discount on Notes Payable (+L)

Recognized accrual of interest on a short-term note (\$600/6)

After this entry is recorded at the end of the first month, the balance of the discount would have been reduced to \$500, and the balance sheet carrying amount of the note would be as follows:

Notes payable \$10,000 Less: Discount on Notes Payable 500 \$9,500

CURRENT MATURITIES OF LONG-TERM DEBTS

Long-term debts are often retired through a series of periodic installments. The installments that are to be paid within the time period that defines current assets (one year or the current operating cycle, whichever is longer) should be included on the balance sheet as current liabilities. The remaining installments should be disclosed as long-term liabilities.

For example, assume that on December 31, 2011, Wright and Sons borrows \$50,000, which is to be paid back in annual installments of \$7,000 each. The first payment, which is due on December 31, 2012, will consist of \$5,000 in interest and \$2,000 in principal. On the December 31, 2011, balance sheet, the associated payable would be disclosed in the following way. Note that the \$50,000 principal amount is divided up into \$2,000, which is due in the current period, and \$48,000, which is long-term. The \$5,000 in interest will be accrued at the end of 2012 after the company has had use of the funds.

Current Liabilities:

Current Maturity of Long-term Debt 2,000 Long-term Liabilities:

Long-term Notes Payable 48,000



Included as current liabilities in the 2008 annual report of Coca-Cola are accounts payable, accrued expenses, loans and notes payable, accrued income taxes, and current maturities of long-term debts. Define each of these items and explain why they are considered current liabilities.

Dividends Payable

A liability is created when the board of directors of a corporation declares a dividend to be paid to the shareholders. It is listed as current because dividends are usually paid within several weeks of declaration. The methods used to account for dividends are discussed in Chapter 12.

Unearned Revenues

Payments are often received before contracted services are performed. In such cases, an *unearned revenue, deferred revenue,* or *receipt in advance* liability is created because the companies receiving the payments are under obligations that must be

fulfilled. This liability is then converted to revenue as the related services are performed or the relevant goods are delivered. Recall that one of the primary criteria of revenue recognition is that the earning process must be complete before a revenue can be recognized. If providing the related services or relevant goods is expected to require the use of current assets, the unearned revenue liability should be classified as current.



Microsoft carries over \$13 billion in unearned revenue in the current liability section of its 2009 balance sheet. What does this indicate about the nature of the contract between Microsoft and some of its customers? What responsibility does Microsoft have in the short-term future?

Unearned revenues arise from a number of different transactions: gift certificates sold by retail stores redeemable in merchandise, coupons sold by restaurants that can be exchanged for meals, tickets and tokens sold by transportation companies good for future fares, advance payments for magazine subscriptions, and returnable deposits. Two particularly interesting examples are common in the airline industry. Passenger tickets are frequently paid several months before they are used, often because special discount fares are available with prepayment. These receipts are not immediately treated as revenues by the airlines but are recorded as Air Traffic Liability and listed in the current liabilities section of the balance sheet. These liabilities are converted to revenue as the tickets are used. Similarly, the frequent-flyer programs offered by a number of the major airlines create obligations, as customers build up mileage credits that must be paid in the form of free airline tickets. While most airlines have neglected to do so, these liabilities should be recognized as the mileage credits are earned.

To illustrate the basic methods used to account for unearned revenues, assume that Seattle Metro Transit sells bus passes, good for one month, for \$20 each. On December 15, the transit company sells 50 passes for a total of \$1,000. The following journal entries would be recorded on December 15 and December 31, after one-half month had expired:

Dec. 15	Cash (+A)	1,000	
	Unearned Revenue (+L)		1,000
	Sold 50 bus passes for future service		
Dec. 31	Unearned Revenue (-L)	500	
	Fees Earned (R, +RE)		500
	Recognized completion of one-half future service		



On its 2008 balance sheet Continental Airlines reported a current liability titled "air traffic and frequent-flyer liability" that exceeded \$1.8 billion. Explain the nature of this liability and distinguish it from accounts payable, another account that appears on the company's balance sheet.

Third-Party Collections

Companies often act as collecting agencies for government or other entities. The price paid for an item at Target, for example, includes sales tax, which Target must periodically remit to the proper government authority. Companies are also required by law to withhold from employee wages social security taxes as well as an amount approximating

the employee's income tax.³ These withholdings are periodically sent to the federal government. In addition to payroll tax deductions, companies often withhold insurance premiums or union dues, which in turn must be passed on to the appropriate third party. In each of these cases, a liability is created; the company receives or holds cash that legally must be paid to a third party. The liability is discharged when the cash payment is made. These liabilities are usually considered current because payment is expected within the time period of current assets.

To illustrate, assume that Sears sells a small tractor for \$1,000, which includes \$50 in sales tax. The proper journal entry to record the sale follows:

Cash (or Accounts Receivable) (+A)	1,000	
Sales Tax Payable (+L)		50
Sales (R, +RE)		950
Sold merchandise and collected sales tax		

When Sears pays the sales tax to the proper government authority, the following entry is recorded:

Income Tax Liability

Income tax liability for a corporation is based on a percentage of taxable income in accordance with the rules stated in the Internal Revenue Code. The income tax rate currently paid by U.S. corporations is approximately 35 percent of taxable income. Most corporations are required by law at the beginning of each year to estimate their tax liabilities for the entire year and to make quarterly tax payments based on these estimates.

Incentive Compensation

Basing compensation on net income and/or stock prices is a very popular way to pay executives and managers. Such payments comprise a significant portion of the total compensation of virtually all upper-level executives in major U.S. corporations. Profit-sharing arrangements, which are also based on a measure of net income, are frequently used to compensate employees at lower levels of the corporate hierarchy. *Accounting Trends and Techniques* (AICPA, 2009) reported that virtually all major U.S. companies compensate their employees on some performance-based measure. "More and more, it's a system U.S. companies are using to recruit, keep, and motivate workers," says Whit Smith, owner of Whitney Smith Co. in Fort Worth.

Incentive compensation plans can take a number of different forms. AMP Incorporated, for example, has two incentive bonus plans: (1) a stock plus cash plan and (2) a cash plan. Executive compensation under the first plan is related to the market value of the company's stock; compensation under the second is a percentage of the company's net income. The formula for Chrysler's incentive compensation plan included a provision of 8 percent of consolidated net income. Exxon's incentive program indicates that the total amount distributed cannot exceed 3 percent of net income or 6 percent of capital invested (as defined by the plan). Figure 10–4 describes the incentive compensation formulas for selected large U.S. corporations.

^{3.} Companies must not only withhold employee social security taxes; they must also match them. That is, employers must pay to the government a dollar amount equal to that withheld from the employee's wages. Such payments can be quite large. General Motors, for example, pays well over \$100 million each year in matched social security taxes.

FIGURE 10-4

Bonus formulas of selected large corporations for executive compensation pools Aluminum Co. of
America
15% of total cash dividends.

Ashland Oil
6% of after-tax net income.

The Boeing Co.
6% of before-tax net income.

Bristol-Myers Squibb Lesser of 6% of before-tax net income or 8%

of after-tax net income.

DuPont 20% of after-tax net income in excess of 6%

of shareholders' equity.

Goodyear Tire & 10% of after-tax net income in excess of

Rubber consolidated book value of outstanding capital stock.

ITT Corp. 12% of after-tax net income in excess of 6% of

shareholders' equity.

International Paper 8% of after-tax net income in excess of 6%

of shareholders' equity.

Rockwell 2% of the first \$100 million of before-tax net

International income plus 3% of the next \$50 million of before-tax

net income plus 4% of the next \$25 million of before-tax net income plus 5% of the balance.

Unocal Corp. 3% of after-tax net income in excess of 6% of

shareholders' equity.

From an accounting standpoint, liabilities associated with incentive compensation plans must be accrued at year-end because they are based on measures of performance (e.g., net income or stock prices) that cannot be determined until that time. They are listed as current on the balance sheet because they are typically distributed to employees early the following period, at which time the liability is discharged.

Suppose, for example, that Tom Turnstile, an executive for Maylein Stoneware, is paid a bonus each year in the amount of 3 percent of net income before income taxes. If net income before income taxes is determined at year-end to be \$300,000, Turnstile's bonus is $$9,000 ($300,000 \times 0.03)$, and the following journal entry is recorded:

Bonus Expense (E, -RE) 9,000

Bonus Liability (+L) 9,000

Accrued bonus liability

When the bonus is paid the following year, the following journal entry is recorded.

Bonus Liability (-L) 9,000

Cash (-A) 9,000

Paid bonus liability

Incentive compensation plans are popular because they induce managers and employees to act in a manner consistent with the objectives of the shareholders. By basing compensation on net income or stock prices, such plans encourage management to maximize these measures of performance. Keep in mind, however, that managers have incentives to influence the measure of net income through operating decisions, the choice of accounting methods, estimates, assumptions, the timing of accruals, or even intentional misstatements.⁴

^{4.} A number of research studies in accounting support the conclusion that management's choice of accounting methods (e.g., FIFO vs. LIFO; straight-line vs. accelerated depreciation) is influenced by the existence and nature of executive compensation plans.

To illustrate, suppose in the previous example that Tom Turnstile, who receives a bonus equal to 3 percent of net income each year, is the chief financial officer for Maylein Stoneware. At year-end, rather than reporting net income at \$300,000 as stated in the example, he overlooks a \$20,000 accrued expense, chooses an accounting method that recognizes \$20,000 less of expenses (e.g., FIFO), or postpones \$20,000 in research and development expenditures. Any of these acts would cause expenses to be \$20,000 less than otherwise and net income to be \$320,000 instead of \$300,000. Tom's bonus would then be $$9,600 ($320,000 \times 0.03)$ instead of $$9,000 ($300,000 \times 0.03)$, an increase of \$600.



Companies registered with the SEC are required to include in their proxy publications, which inform shareholders about the company and invite them to attend the annual shareholders' meeting, extensive disclosures about the nature and amount of the compensation paid to executives. For example, the 2008 proxy statement for Home Depot reported that Chairman and CEO Francis Blake was paid over \$8 million in 2008, consisting of over \$1 million in salary, approximately half a million in bonus, and over \$6 million in stock-based awards. Discuss why shareholders should be interested in such information.

While executive compensation systems based on net income encourage management to act in the interests of the shareholders, they also encourage management to manipulate the measure of net income. In certain cases, such manipulations could be considered unethical, and furthermore, it may not even be in management's economic interest to do so. As illustrated throughout this text, accounting manipulations normally reverse themselves over time, and shareholders, investors, and creditors may discount the values of companies that provide financial statements of questionable credibility. Nonetheless, all interested parties should still be aware that management has incentives to manipulate income to increase compensation, and often controls the mechanism to do so.⁵



Executive compensation for banks and other financial services firms became a hotbed of discussion during the 2008–2009 recession and the federal government's unprecedented bailout of many firms. Banks such as Bank of America, Goldman Sachs, and JPMorgan Chase, insurance giant AIG, and industrial firms such as General Motors were all subject to public and congressional questioning for their large payments to executives at the same time that the taxpayers funded equity injections and/or takeovers of these firms. Discuss the pros and cons of high executive compensation and what disclosures in the financial statements can tell analysts and other readers about company pay practices.

CONTINGENCIES AND CONTINGENT LIABILITIES

As defined by the FASB, "a contingency is an existing condition, situation, or set of circumstances involving uncertainty as to possible gain or loss to an enterprise that will ultimately be resolved when one or more future events occurs or fails to occur." A common example is an existing lawsuit that will be settled in the future by the decision of a court. If the possible future outcome represents an increase of assets

A popular method of compensating executives involves the use of stock options, which is covered in Chapter 12.
 Financial Accounting Standards Board (FASB), "Accounting for Contingencies," Statement of Financial Accounting Standards No. 5 (Stamford, Conn.: FASB, 1987), par. 1.

or a decrease of liabilities, the existing condition is considered a **gain contingency.** If the possible outcome represents a decrease in assets or an increase in liabilities, the condition is considered a **loss contingency.**

Before discussing the methods used to account for contingencies, study the following scenario carefully. It is designed to illustrate some of the economic issues involved in reporting contingencies.

Contingent Liabilities: A Scenario

Suppose that Harry Jones, the accountant for Chemical Enterprises, is preparing the financial statements as of December 31, 2011. Chemical Enterprises is in need of cash and plans to submit the financial statements to First National Bank with an application for a sizable loan. First National has required that the statements Harry prepares be audited by an independent CPA. To conduct the audit, Chemical has hired the firm of Arthur Mitchell & Co.

The preparation of the statements has gone smoothly for Harry, except for one rather significant problem. Several months ago, evidence of a small amount of toxic liquid, allegedly from one of Chemical's plants, was found in the water supply of a small midwestern town. The extent of Chemical's responsibility and the nature and extent of any physical harm to the town's residents are still uncertain, but the town has filed suit against Chemical for \$1 million, a material amount, and a court case is currently in process. After reviewing the facts of the case, Chemical's lawyers estimate that there is a 70 percent chance that Chemical will successfully defend itself against the lawsuit.

Harry is uncertain how this lawsuit should affect the financial statements of Chemical as of December 31, 2011. As he sees it, the following alternatives represent the three possible ways to account for it.

- 1. Ignore the lawsuit on the financial statements.
- 2. Disclose and describe the lawsuit in the footnotes to the financial statements.
- 3. Recognize a loss on the income statement and a liability on the balance sheet in the amount of \$1 million, and disclose and describe the lawsuit in the footnotes.

ALTERNATIVE 1: IGNORE

Under the first alternative, the lawsuit would not be mentioned anywhere in the financial statements. No loss has occurred as of December 31, 2011, and there is a 70 percent chance, according to the lawyers, that no loss will occur at all. Chemical's managers might be inclined to favor this alternative over the others because they suspect that disclosing the lawsuit (Alternative 2) or adjusting the financial statements to reflect it (Alternative 3) could endanger the bank loan or at least make the terms (e.g., interest rate) of the loan less favorable. Ignoring the lawsuit would avoid a negative effect on the financial ratios in general as well as on any contracts based on them.

However, the auditor, Arthur Mitchell & Co., is also aware of the lawsuit and is likely to render a qualified opinion on the financial statements unless some recognition is made of the potential loss. If it is not disclosed, and the auditor grants an unqualified (clean) opinion and the bank makes the loan, the auditor may be liable for any losses the bank incurs as a result of the litigation against Chemical. Ignoring the lawsuit would not be a conservative choice for either the auditor or management and may expose them both to significant legal liability.

ALTERNATIVE 2: DISCLOSE

The second alternative entails disclosing the nature and amount of the lawsuit as well as the opinions of Chemical's legal counsel. This alternative would describe the

situation to the bank as well as other financial report users, but it would have no effect on the dollar amounts in the financial statements. Consequently, financial ratios and contracts written in terms of financial statement numbers would remain unaffected. However, the bank could make any adjustments it saw fit and thereby assess for itself the magnitude of the potential problem.

ALTERNATIVE 3: ACCRUE

The final alternative is to accrue the loss and the related liability on the financial statements. If Harry chooses this action, he would make the following adjusting entry on December 31, 2011.

Contingent Loss (Lo, -RE) 1,000,000
Contingent Liability (+L) 1,000,000
Accrued contingent liability

The contingent loss account is a temporary account that would appear on the income statement, reducing net income and, ultimately, shareholders' equity. The contingent liability account would appear on the liability side of the balance sheet and be classified as current if payment were expected to require the use of assets listed as current. If Chemical loses the suit and pays the residents of the town, the contingent liability will be written off in the following manner:

Contingent Liability (-L) 1,000,000 Cash (-A) 1,000,000 Paid contingent liability

Alternative 3 would probably be very unattractive to the management of Chemical. Having to recognize the contingent loss and the associated liability on the financial statements would not only endanger the bank loan but could make important financial ratios appear much less favorable. It could, therefore, put the company in technical default on existing debt covenants as well as reduce compensation from bonus and profit-sharing plans. Furthermore, the court might interpret accrual of the loss as Chemical's own admission that the suit is lost, reducing Chemical's chances of successful defense.

On the other hand, accruing the contingent loss is the most conservative choice. It would therefore substantially reduce the potential legal liability faced by both the auditor and Chemical's management and possibly increase the credibility of both parties in the view of financial statement users. Furthermore, accruing the loss in this period would ensure that it would not have to be accrued in a future period.

In the pharmaceutical industry success involves the creation of effective drugs and the ability to patent them, restricting competitors from producing generic copies once the drug is released. Lawsuits charging patent infringement are common. In its 2008 annual report Eli Lilly, a major pharmaceutical, described four patent infringement lawsuits brought by the company against other pharmaceutical manufacturers attempting to market generic versions of four of Lilly's patented drugs. Lilly noted "it is not possible to predict the outcomes of this litigation and, accordingly, we can provide no assurance that we will prevail. An unfavorable outcome in any of these cases could have a material adverse impact on our consolidated results of operations, liquidity, and financial position." Discuss the related accounting issues.

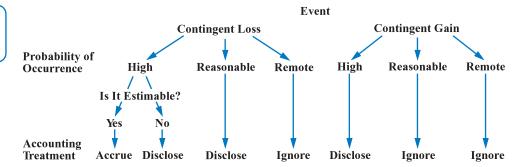


Accounting for Contingencies

Choosing the appropriate accounting treatment for the situation depicted in the preceding scenario is not a simple matter. Each of the three alternatives is attractive in some respects and unattractive in others. The FASB addresses this problem in Standard No. 5, "Accounting for Contingencies," which provides guidelines that should be followed when accounting for contingencies. This standard first distinguishes between gain contingencies, which involve possible future gains, and loss contingencies, which involve possible future losses.

Figure 10–5 illustrates the methods used to account for both gain and loss contingencies. Note first that each is preceded by an initial event (e.g., the filing of a lawsuit). The probability of the related gain or loss is then assessed, usually by experts in the area, and classified as either "highly probable," "reasonably probable," or "remote." In all cases except highly probable contingent losses, this classification determines whether the gain or loss should be ignored or disclosed in the footnotes. In those cases where a contingent loss is considered highly probable, the question of whether it can be estimated is also addressed. If the loss can be estimated, it is accrued and disclosed. If it cannot, information about the loss is simply disclosed.

FIGURE 10-5
Accounting for contingencies



GAIN CONTINGENCIES

Gain contingencies are almost never accrued on the financial statements and are rarely disclosed in the footnotes. They are not recognized until they are actually realized, which is consistent with both the principle of objectivity and the concept of conservatism. It avoids any subjective estimates involved in predicting the outcomes of contingent events and ensures that the financial statements do not reflect gains that may not actually occur.

LOSS CONTINGENCIES

Loss contingencies, on the other hand, are often disclosed, and when highly probable and estimable, they are accrued. The resulting liability is considered current if it is expected to require the use of assets that are listed on the balance sheet as current.



Under IFRS the conditions under which contingent losses are accrued involve a lower threshold than under U.S. GAAP, resulting in more contingent losses being accrued under IFRS.

Classifying contingent losses as "remote," "reasonably probable," or "highly probable" and estimating the dollar amount of "highly probable" contingent losses is often quite subjective. Managers and auditors normally consult legal counsel or other experts, but in areas like lawsuits, it is difficult to predict outcomes accurately. Consequently, relatively few contingent losses stemming from lawsuits are actually accrued on the financial statements. The following quote, taken from an annual report of Johnson & Johnson, provides a typical example.

The Company is involved in numerous product liability cases in the United States, many of which concern adverse reactions to drugs and medical devices. The damages are substantial [and] it is not feasible to predict the ultimate outcome of litigation. However, the Company believes that if any liability results from such cases, it will be substantially covered by the Company's reserves.

When losses are accrued, loss ranges are usually specified in the footnotes, and a "reasonable estimate" within the range typically serves as the dollar amount for the accrual. Owens Corning, for example, accrued a huge liability for outstanding litigation related to asbestos claims dating as far back as 1960. The accompanying footnote described the range of possible settlements, and the amount of the accrual reflected "management's estimate." If no "reasonable estimate" can be agreed upon, the lowest amount in the range is normally used.



Under IFRS, the phrase "best estimate" is used instead of "reasonable estimate," the amount of the liability is represented by the present value of the future expected cash outflows, and the liability itself is referred to as a "provision."

Some accrued losses can be very significant. For example, Paragon Trade Brands, a maker of generic diapers, booked a contingent loss related to a patent infringement case with Procter & Gamble that wiped out its entire shareholders' equity. In another example, Rockwood Holding Co. was issued a qualified opinion by its independent auditors "in connection with litigation related to credit insurance." As reported in *Forbes*, such qualifications are issued by auditors to "protect themselves from future litigation" by alerting investors and "bank credit officers to important footnotes" and material uncertainties about the future of the company.



The 2008 annual report of Bristol-Myers Squibb, a major pharmaceutical, reported that as of December 31, 2008, \$38 million was included in current liabilities for various product liability claims. What entry was made to record this liability, what conditions must have been met to justify this accrual, and what effect associated with this accrual would you expect to see on the statement of cash flows?

A major current issue in contingency reporting involves environmental cleanup costs, which some have estimated to be as much as \$800 billion. Through "superfund legislation," the U.S. government has established both a fund to clean up pollution and a mandate for companies to clean up existing waste sites. This legislation also empowers the Environmental Protection Agency (EPA) to clean up existing waste sites and then be reimbursed by any party deemed responsible for contaminating the site. Being designated a "potentially responsible party" by the EPA can result in the imposition of

a huge liability. Some estimate that it will cost \$65 billion to clean up existing waste sites, and each site is expected to cost an average of \$25 million.

Environmental costs are a special concern for heavy manufacturing companies (e.g., petroleum products) and utilities (e.g., power plants) that have been in operation for many years. These companies are finding that they are increasingly being found responsible for environmental cleanup, often due to activities that occurred long before there was much public concern about the environment. While there is often great uncertainty about the actual dollar amount of these liabilities, more and more companies are incurring environmental cleanup costs and, at the same time, are disclosing and accruing contingent environmental liabilities in the annual report.



Insecticide manufacturer FMC Corporation reported in its 2008 annual report, "Environmental liabilities consist of obligations relating to waste handling and the remediation and/or study of sites at which we are alleged to have released or disposed of hazardous substances. . . . Accordingly, total reserves of \$194.2 million and \$188.6 million, respectively, before recoveries, were recorded at December 31, 2008 and 2007. . . . In addition, we have estimated that reasonably possible environmental loss contingencies may exceed amounts accrued by approximately \$80 million at December 31, 2008." Discuss the company's treatment of environmental contingencies.

In addition to litigation and environmental costs, the contingency framework applies to many other important areas of accounting. The allowance method used to account for uncollectibles, for example, treats bad debts as highly probable and therefore accrues estimable loss contingencies. In the next section, we consider warranties, another important area of accounting that relies on the contingency framework.

WARRANTIES: ACCRUED LOSS CONTINGENCIES

In a warranty, a seller promises to remove deficiencies in the quantity, quality, or performance of a product sold to a buyer. Warranties are usually granted for a specific period, during which time the seller promises to bear all or part of the costs of replacing defective parts, performing necessary repairs, or providing additional services. From the seller's standpoint, warranties entail uncertain future costs. It is unlikely that all buyers will take advantage of the warranties granted to them, but enough of them do so to consider the future costs probable and reasonably estimable. Thus, warranties are normally accounted for as accrued contingent losses.

For example, suppose that Hauser and Sons sold ten word processors on July 1 for \$1,000 each. Each word processor is under warranty for parts and labor for one year, and based on past experience, the company estimates that, on average, warranty costs will be \$100 per unit. During the remainder of the year, several machines require servicing, and as of December 31, \$350 of warranty costs had been paid. The following entries would be recorded to reflect these events:

Cash or Accounts Receivable (+A)	10,000	
Sales (R, +RE)		10,000
Sold ten word processors (10 × \$1,000)		
Warranty Expense (E, -RE)	1,000	
Contingent Warranty Liability (+L)		1,000
Recognized contingent liability (10 × \$100)		

Contingent Warranty Liability (-L) 350
Cash (-A) 350
Paid warranty liability

Several features of this accounting treatment are noteworthy. First, the contingent liability is created when the word processors are sold, because at that time Hauser and Sons are responsible for future services. Accordingly, the entire expected warranty expense related to the sale of the ten word processors is recognized in the period of sale, even though only a \$350 cost is actually paid. The total warranty expense is thereby matched against sales revenue in the period of sale. Also, the balance in the contingent warranty liability account at the end of the period is \$650 (\$1,000 - \$350), indicating that costs of \$650 are still expected during the following six-month period due to warranties. This amount would be listed as a current liability on the December 31 balance sheet. As the following entry illustrates, the \$650 contingent liability is removed from the books when costs are incurred to service the warranties as they are exercised in the second period.

Contingent Warranty Liability (-L) 650
Cash (-A) 650
Paid warranty liability



Goodrich Corporation records an accrual for estimated future warranty claims at the time revenue is recognized. At the beginning of 2009, the company reported a warranty liability of \$139.2 million; at year-end the amount also totaled \$147.6 million. Warranty expense reported on the 2009 income statement totaled \$52.3 million. Explain how Goodrich's accounting treatment for warranties is consistent with both contingency reporting and the matching principle. Estimate the cash payments made during 2009 to meet outstanding warranty claims.

PROVISIONS VS. CONTINGENT LIABILITIES: THE "DEVIL IS IN THE DETAILS"

Like most companies that publish IFRS-based financial statements, Unilever, a Dutch consumer-goods manufacturer, reports a balance sheet account called "**provisions**" with a sizable balance. Unilever's 2008 balance sheet, for example, includes a 377 millioneuro provision classified as a current liability as well as a 646 million-euro provision classified as a long-term liability. The accounts consist of a collection of accrued liabilities where obligations exist related to past events, and reliable estimates can be made for the likely outcomes. Examples include estimates for unresolved legal and tax disputes, restructuring provisions involving estimated costs associated with projected factory closings and employee layoffs (e.g., severance pay), and other costs that are probable and can be reliably estimated. In these ways, provisions under IFRS are very similar to contingent liabilities under U.S. GAAP.

However, there are important differences in how these concepts are applied. Provisions are more readily booked than contingent liabilities because under IFRS provisions are accrued when the obligation is "more likely than not," while under U.S. GAAP contingent liabilities are accrued when "highly probable," which is a much higher threshold. Further, under IFRS non-current provisions are valued at the present

value of the future expected cash flows; contingent liabilities under U.S. GAAP are valued at undiscounted cash flows. Finally, when there is a range of possible outcomes associated with the liability, under IFRS the "best estimate" is used, while under U.S. GAAP it is often the lowest value.

These differences illustrate that in many cases the differences between U.S. GAAP and IFRS are more at the application level than at the conceptual level. In concept, a provision and a contingent liability are very much the same, but large differences can arise because the guidelines for how to apply the concepts differ. Indeed, the "devil is in the details."

ROE EXERCISE: MANAGING CURRENT LIABILITIES

The ROE model, introduced and illustrated in Appendix 5A, provides a framework linking the management of a company's operating, investing, and financing activities to its return on the shareholders' investment (return on equity). The management of the nature and level of current liabilities represents important operating activities.

As illustrated by the ROE model, management can increase return on equity by practicing leverage—using borrowed funds to finance investments that provide returns that exceed the cost (e.g., interest) of borrowing. However, at the same time, this strategy imposes a responsibility on management to ensure that the company can remain solvent—generate enough cash to meet the obligations associated with the borrowings as they come due. Consequently, current liabilities play a particularly important role in the solvency ratios (see Chapter 5, Figure 5–3)—current ratio, quick ratio, interest coverage, and accounts payable turnover. Assessing how these ratios change relative to changes in a company's leverage position is an important part of financial statement analysis.

ROE ANALYSIS

Access the Web site (http://www.wiley.com/college/pratt), and conduct ROE analyses on Kohl's versus Dillards and/or Yahoo! versus Google, all four of which carry significant levels of current liabilities, paying special attention to the relationship between the companies' leverage and solvency positions.

APPENDIX 10A

RETIREMENT COSTS: PENSIONS AND POSTRETIREMENT HEALTHCARE AND INSURANCE

This appendix briefly defines and describes how to account for pension and postretirement healthcare and insurance liabilities.

PENSIONS

A **pension** is a sum of money paid to a retired or disabled employee, the amount of which is usually determined by the employees' years of service. For most large companies, pension plans are an important part of the employees' compensation packages, and they are part of almost all

negotiated wage settlements. Pension plans are backed by contractual agreements with the employees and are subject to federal regulation.

Most pension plans are structured so that an employer periodically makes cash payments to a pension fund, which is a legal entity distinct from the sponsoring company. The cash, securities, and other income-earning investments that make up the fund are usually managed by someone outside the company, and the assets in the pension fund do not appear on the company's balance sheet. The employer's cash contributions plus the income generated through the fund's management (i.e., dividends, interest, capital appreciation) provide the cash that is distributed to employees upon retirement. The terms of the pension plan determine the amounts to which individual employees are entitled (benefits).

There are two primary types of pension plans: a defined contribution plan and a defined benefit plan.

Defined Contribution Plan

Under a **defined contribution plan** an employer agrees only to make a series of contributions of a specified amount to the pension fund. These periodic cash payments are often based on employee wages or salaries, and each employee's percentage interest in the total fund is determined by the proportionate share contributed by the employer on the employee's behalf. Under this type of plan, the employer makes no promises regarding how much the employees will receive upon retirement. The actual benefits depend on the investment performance of the fund. The employer guarantees only the inputs (contributions), not the outputs (benefits). Most university business school professors are covered by such a plan.

Accounting for a defined contribution plan is relatively simple because once the employer makes the contribution, the sponsoring company faces no further liability. The cash payment is simply expensed, as in the following journal entry:

Defined contribution plans have gained in popularity over the last several years. Defined contribution plans, such as the very common 401(k)s, are considered much less expensive than defined benefit plans, which are covered in the next section. Home Depot, for example, contributed \$159 million to its defined contribution pension plan during 2006.

Defined Benefit Plan

Under a **defined benefit plan** the employer promises to provide each employee with a specified amount of benefits upon retirement. Such a guarantee is somewhat more difficult than promising to make specified contributions because the benefits are received by the employees in the future and therefore are uncertain. The benefits must be predicted, and the employer must contribute enough cash so that the contributions plus the earnings on the assets in the fund will be sufficient to provide the promised benefits as they come due. The employees of most major U.S. companies are covered by defined benefit plans. 8

In the past, many employers under defined benefit plans either set aside no funds or failed to set aside enough to cover their future pension obligations. They simply paid the obligations as they came due, often out of the company's current operating capital. This practice not only represented poor financial management but, on occasion, left retired employees short of their rightful pension benefits. To help ensure that retired employees received what was promised

^{7.} The social security system currently operating in the United States is a type of defined benefit pension plan; the federal government promises U.S. citizens a specified amount of benefits at age sixty-five. Presumably, these benefits are paid out of a fund that contains income-earning securities.

^{8.} Accounting Trends and Techniques (New York; AICPA, 2009) reports that, of the major U.S. companies surveyed, almost 75 percent disclose the existence of a defined benefit pension plan.

them, Congress passed the **Employment Retirement Income Security Act (ERISA)** in 1974, which requires employers to fund their plans at specified minimum levels and provides other safeguards designed to protect employees.

The basic accounting procedures and the theories underlying accounting for defined benefit pension plans are really quite simple. In accordance with the matching principle, pension expense and the associated liability are accrued each period as employees earn their rights to future benefits (i.e., during the years when the employees provide services and help the company to generate revenues). The periodic adjusting entry to record this accrual takes the following form:

Pension Expense (E, -RE) 800
Pension Liability (+L) 800
Recognized \$800 pension liability

The periodic cash payments made by the employer to the pension fund simply reduce the pension liability as in the following journal entry, and the pension liability that appears on the balance sheet is simply the difference between the accrued liability and the cash payments. A large pension liability indicates that a significant amount of the expected pension costs has yet to be funded.

Pension Liability (-L) 500
Cash (-A) 500
Paid \$500 to pension fund

The primary difficulties in accounting for and managing a defined benefit plan are in (1) determining the appropriate dollar amount of the periodic accrual entry (i.e., Pension Expense debit and Pension Liability credit) and (2) deciding how much cash needs to be contributed to the pension fund to cover the eventual liability. The ultimate pension cost cannot be known for certain until the employees have received all the benefits to which they are entitled. This will not be known until the employees' deaths as well as the deaths of their survivors, who may also be entitled to certain benefits. Unpredictable factors such as employee life expectancies, employee turnover rates, future salary and wage rates, and pension fund growth rates all have a bearing on this determination.

Most companies hire actuaries (statisticians who specialize in such areas as assessing insurance risks and setting premiums) to establish estimates of the future pension costs and to provide methods for allocating those future costs to current periods (called *actuarial cost methods*). Generally accepted accounting principles require that an employer periodically recognize an expense and an associated liability in an amount that is established by one of many acceptable actuarial methods. The amount of this accrual is usually equal to an estimate of the present value of the pension benefits earned by employees during a given period. These amounts are very inexact, depending largely on subjective estimates and assumptions. As a matter of policy, contractual obligation, or law (ERISA), most companies make periodic cash payments to their pension plans in amounts that approximate the accruals they have chosen to record. Thus, the pension liability appearing on most balance sheets is either zero or relatively small.

Gains in the stock market in the late 1990s boosted the fair market values of company pension plans, creating gains that are reflected in reported net income. As *Newsweek* (April 24, 2000) suggested, "these gains are expected to pad the profits of some big companies for years to come," including General Electric, SBC Communications, IBM, Lucent Technologies, and BellSouth. Analysts warn that income from appreciated pension assets is not part of the company's core activities. While the news was good for these companies, it was not quite the same as rising earnings due to success in a company's core business. Indeed, stock market losses since that time have wiped out many of those gains.

As specified in *Financial Accounting Standards Nos. 87* and *88*, the accounting methods and disclosure requirements for pension plans are more comprehensive and complex than indicated in this appendix. The following excerpt from the 2008 annual report of Eli Lilly represents only a small portion of the required disclosures (dollars in millions).

As of the end of 2008, the pension benefit obligation was \$6.35 billion and the market value of the assets designated to cover the obligation was \$4.80 billion, indicating that the assets were not sufficient to cover the future obligation.

	Defined Benefit Pensio Plans	
	2008	2007
Change in benefit obligation		
Benefit obligation at beginning of year	\$ 6,561.0	\$6,480.3
Service cost	260.1	287.1
Interest cost	409.8	362.4
Actuarial (gain) loss	(257.4)	(373.1)
Benefits paid	(338.4)	(311.0)
Plan amendments	(2.4)	32.7
Foreign currency exchange rate changes		
and other adjustments	(279.0)	82.6
Benefit obligation at end of year	6,353.7	6,561.0
Change in plan assets		
Fair value of plan assets at beginning of year	7,304.2	6,519.0
Actual return on plan assets	(2,187.8)	833.8
Employer contribution	223.7	202.9
Benefits paid	(326.1)	(301.4)
Foreign currency exchange rate changes		
and other adjustments	(217.9)	49.9
Fair value of plan assets at end of year	4,796.1	7,304.2
Funded status	(1,557.6)	743.2
Unrecognized net actuarial loss	3,474.8	1,143.3
Unrecognized prior service cost (benefit)	72.7	88.4
Net amount recognized	\$ 1,989.9	\$1,974.9

Accounting for pension plans is also quite subjective, relying heavily on estimates and assumptions. Furthermore, a small change in an important estimate can have a significant effect on both the amount funded by the company and the pension expense and liability reported on its financial statements. For example, to determine what a company must contribute to the pension plan each year, company accountants must estimate the fund's future annual return. The *Wall Street Journal* reported that over a three-year period, GM predicted an annual return on its pension fund of 11 percent but realized only an 8.7 percent return. Missing that target understated the company's pension expense by "a couple hundred million" and led to a funding shortfall of similar size.

POSTRETIREMENT HEALTHCARE AND INSURANCE COSTS

Most large companies cover a portion of the healthcare and insurance costs incurred by employees after retirement. Similar to pensions, such coverage is part of employee compensation and is earned over an employee's years of service. According to the matching principle, therefore, such costs should be accrued over the employee's tenure with the company, and then the associated liability should be written off as the benefits are paid after the employee's retirement. The issues of estimating this liability, providing adequate funds to meet required future payments, and accounting for such transactions are very similar to those involved with pensions, and accordingly, the appropriate accounting methods are basically the same.

The following excerpt comes from the 2008 annual report of Eli Lilly which, like many other companies, provides the same disclosures for postretirement healthcare costs as they do for pensions (dollars in millions).

Dativas Haalth Danafit

	Retiree Health Benefit Plans	
	2008	2007
Change in benefit obligation		
Benefit obligation at beginning		
of year	\$1,622.8	\$1,740.7
Service cost	62.1	70.4
Interest cost	105.7	101.4
Actuarial (gain) loss	101.6	16.4
Benefits paid	(92.2)	(81.6)
Plan amendments	_	(227.7)
Foreign currency exchange rate changes		
and other adjustments	(3.7)	3.2
Benefit obligation at end of year	$\frac{(3.7)}{1,796.3}$	1,622.8
Change in plan assets		
Fair value of plan assets at beginning		
of year	1,348.5	1,157.3
Actual return on plan assets	(438.6)	147.4
Employer contribution	87.9	125.4
Benefits paid	(92.2)	(81.6)
Foreign currency exchange rate changes and other adjustments	_	_
Fair value of plan assets at end of year	905.6	1,348.5
Funded status	(890.7)	(274.3)
Unrecognized net actuarial loss	1,409.6	820.3
Unrecognized prior service cost (benefit)	(261.6)	(297.7)
Net amount recognized	\$ 257.3	\$ 248.3

APPENDIX 10B

DEFERRED INCOME TAXES

We have noted that the rules for computing income and expenses for purposes of taxation, as specified by the Internal Revenue Service, are different from generally accepted accounting principles, which specify how financial accounting net income is to be measured. These differences can be divided into two categories: permanent and timing differences. Permanent differences never reverse themselves, while timing differences do. Premiums paid on life insurance policies covering key employees, for example, are not deductible for tax purposes, but they are charged against income for financial reporting purposes. Interest received on municipal bonds is not included in taxable income but is recognized as revenue on a company's income statement. The different treatments for tax and financial accounting purposes in these two examples are considered permanent, because in neither case will the effect on income of the different treatments reverse itself over the life of the asset.

One of many common temporary differences arises when a company depreciates its fixed assets using an accelerated method when computing taxable income and the straight-line method when preparing the financial statements. This strategy causes taxable income to be less than accounting income in the early periods of the asset's life, but as illustrated in Chapter 9, this difference reverses itself in the asset's later years. Many accountants believe that timing differences of this kind create a liability, called deferred income taxes, in the asset's early years, which is discharged in the later years.

THE CONCEPT OF DEFERRED INCOME TAXES

Suppose that Midland Plastics purchased a piece of equipment on January 1, 2009, for \$9,000. The equipment is expected to have a three-year useful life and no salvage value. Midland computes depreciation using the double-declining-balance (DDB) method for income tax purposes and straight-line for reporting purposes. In 2009, Midland's choice to use two different depreciation methods creates an income tax expense on the income statement, which is based on straight-line depreciation, that is greater than its income tax liability, which is based on double-declining-balance depreciation. In 2010 and 2011, the difference reverses itself, and the income tax expense is less than the income tax liability. Figure 10B–1 provides a schedule of these differences and, assuming an income tax rate of 30 percent, computes the tax effects associated with using DDB instead of straight-line for tax purposes.

FIGURE 10B-1
Income tax effects
due to DDB
depreciation

Year	DDB Depr.ª		SL Depr. ^b		Excess (Under) Depr.		Tax Rate		Tax Benefit (Disbenefit)
2009 2010 2011 Total	\$6,000 2,000 1,000 \$9,000	- - -	\$3,000 3,000 <u>3,000</u> \$9,000	= = =	\$3,000 (1,000) (2,000) \$ 0	× × ×	30% 30% 30%	= = =	\$ 900 (300) (600) \$ 0
^a [\$9,000 ^b \$9,000/3	- accumula	ted de		× 2[s	 traight-line r	ate (3	3%)]		

Note that use of the DDB method, instead of straight-line, creates a tax savings of \$900 in 2009, the first year of the equipment's useful life. In 2010 and 2011, however, this benefit reverses itself, giving rise to additional tax payments of \$300 in 2010 and \$600 in 2011. As of the end of 2009, Midland can view these additional tax payments as liabilities, because many consider them to be future obligations. Specifically, additional tax payments that total \$900 (\$300 + \$600) are expected in 2010 and 2011. This liability is reported on the balance sheet and referred to as deferred income taxes. Midland Plastics, in other words, would report a deferred income tax liability of \$900 in the liability section of its 2009 balance sheet.

During 2010 and 2011, as the tax benefit reverses itself and Midland pays the additional taxes, the deferred income tax liability is reduced by \$300 in 2010 and by \$600 in 2011. As of the end of 2011, therefore, after the useful life of the equipment has expired, the deferred income tax liability will have been reduced to zero.

ACCOUNTING ENTRIES FOR DEFERRED INCOME TAXES

Preparing the journal entry to record the recognition or discharge of deferred income taxes consists of three steps:

1. Compute the future income tax disbenefit (\$900 = \$300 + \$600) as illustrated in Figure 10B–1. This dollar amount is entered as a credit to the deferred income tax account. The dollar amounts of the reversals (2010: \$300, 2011: \$600) are entered as debits to the deferred income tax account in future periods.

- 2. Compute the company's income tax liability (taxable income × corporate income tax rate). This dollar amount is entered as a credit to the income tax payable account.
- 3. Enter a debit to the income tax expense account in an amount that brings the journal entry into balance. Income tax expense is also equal to the net income before tax amount reported on the income statement multiplied times the company's effective income tax rate.

To illustrate, assume in the preceding example that Midland Plastics recognized taxable income in the amount of \$4,000, \$8,000, and \$9,000 in 2009, 2010, and 2011, respectively. At a 30 percent tax rate, the company's tax liability, therefore, is \$1,200 (2009), \$2,400 (2010), and \$2,700 (2011). Given this information, Figure 10B–2 contains the journal entries, and the balance sheet carrying values of the deferred income tax account for the three-year period.

FIGURE 10B-2 Deferred income taxes

Inc. Tax Exp. (E, -RE) 2,100* Inc. Tax Exp. (E, -RE) 2,100* Deferred Inc. Tax (+L) 900 Deferred Inc. Tax (-L) 300 Inc. Tax Pay. (+L) 1,200 Inc. Tax Pay. (+L) 2,400	Inc. Tax Exp. (E, -RE) 2,100* Deferred Inc. Tax (-L) 600 Inc. Tax Pay. (+L) 2,700
Balance sheet excerpt: Deferred income tax 900 (900 – 300) 600 *Plug or effective income tax rate times Net Income before Taxes.	(600 - 600)

In 2009, a deferred tax liability of \$900 is recognized because Midland, which uses the DDB method for tax purposes, expects to pay additional income taxes of \$300 and \$600 over the next two years. An income tax liability of \$1,200 is also recognized, and Income Tax Expense is debited for an amount (\$2,100) that brings the journal entry into balance. In 2010 and 2011, as Midland pays the additional taxes, the deferred income tax account is reduced.

DEFERRED INCOME TAXES: ADDITIONAL ISSUES

The size of the deferred income tax liability account is usually related to the size of a company's investment in fixed assets. Note in Figure 10B–3 that large manufacturing companies, such as Merck, often carry huge balances in their deferred income tax accounts. Such companies normally depreciate their fixed assets using accelerated methods for tax purposes and straightline for financial reporting purposes, and the resulting differences between their tax liability and income tax expense can be quite large. On the other hand, financial institutions, which carry limited investments in fixed assets, rarely show balances in the deferred income tax account. JPMorgan Chase, the American Express Company, and Safeco Insurance, for example, report no deferred income taxes on their balance sheets.

^{9.} In this example, net income before taxes reported on Midland's income statement would be \$7,000 (2009), \$7,000 (2010), and \$7,000 (2011), giving rise to an income tax expense of \$2,100 (\$7,000 × .30) for each year.

FIGURE 10B-3
Deferred income
tax liability
(selected U.S.
companies)

Company	Deferred Tax Liability (millions)	Percentage of Total Assets	
Southwest Airlines	\$1,904	13%	
Merck	7,767	16%	
Avis Budget	1,188	10%	
Johnson & Johnson	1,432	2%	

As explained earlier, the deferred income tax account can be viewed as a liability, reflecting an obligation for additional income tax that must be paid in the future as certain tax benefits reverse. However, growing companies tend to purchase more fixed assets than they retire, which, in turn, causes fixed assets in the early (benefit) periods of their useful lives to exceed those in the later (disbenefit) periods. This phenomenon causes the credit balance in the deferred income tax account to accumulate, and many of the largest companies in the United States have amassed huge dollar amounts in deferred income taxes in this manner.

Another interesting aspect about deferred income taxes is that income statement gains and losses can be recognized when income tax rates change. Consider, for example, the General Electric (GE) Company, which at one time had accumulated excess depreciation (i.e., accelerated in excess of straight-line) of approximately \$4 billion. At the then-current tax rate of 48 percent, these benefits translated to a deferred income tax liability of \$1.92 billion (\$4 billion \times 48%), which GE reported on its balance sheet. However, when the corporate income tax rate was reduced to 34 percent, GE used the new tax rate and recalculated its deferred income tax liability to be \$1.36 billion (\$4 billion \times 34%). Reducing the liability gave rise to an approximate gain of \$560 million (\$1.92 billion - \$1.36 billion), which appeared on the income statement and was recorded with the following entry (dollars in millions):

Deferred Income Tax (-L) 560
Gain on Change in Income Tax Rate (Ga, +RE) 560
Recognized gain due to reductions in future
income tax rates

Similarly, when corporate tax rates later went up from 34 to 35 percent, a number of companies were forced to recognize an additional liability and a charge to earnings. Coca-Cola Enterprises, for example, took a \$40 million charge.

The methods used to account for deferred income taxes are controversial and much more complicated than indicated in this discussion. More in-depth coverage can be found in intermediate accounting texts. Nonetheless, this issue is important to all interested parties because calculating the amount of deferred income tax and reporting it as a liability or otherwise can have significant economic consequences. For example, should the computation of the debt/equity ratio include or exclude deferred income tax? Considering the size of the deferred income tax liability, how interested parties answer this question can affect their solvency assessments of certain companies.

THE CONSERVATISM RATIO

An important theme in this text is that meaningful financial statement analysis cannot be conducted without assessing the extent to which management has used its discretion when preparing the financial statements. We have often noted that such discretion can be used to understate (report conservatively) or overstate the financial condition and performance of a company.

A measure of the extent to which reported income is conservative, called the **conservatism ratio**, can be constructed from information disclosed in the annual report and is as follows.

Conservatism Ratio: Reported Income before Taxes/Taxable Income

The intuition underlying this ratio is based on the premise that for tax purposes companies accelerate tax-deductible expenses and defer taxable revenues as long as is allowable under income tax laws. Thus, taxable income (taxable revenues — tax-deductible expenses), the denominator of the ratio, reflects a very conservative measure of a company's income in a particular year. The extent to which reported income before taxes, the numerator of the ratio, exceeds (or is less than) taxable income indicates how conservative reported income is. Ratio amounts around 1.0 or less indicate relatively conservative levels, while reported income becomes increasingly less conservative as the ratio grows larger than 1.0.

Figure 10B–4 provides 2008 conservatism ratios for three major U.S. companies. Assuming that all three companies reported conservatively to the IRS, it appears that the 2008 financial reporting policies of GE were more conservative than those of FedEx, which were more conservative than those of Walgreens.

FIGURE 10B-4 Conservatism ratios

MANUFACTURING	
General Electric	0.51
SERVICE	
FedEx	1.07
RETAILER	
Walgreens	1.29
Source: 2008 annual repor	rts.

The conservatism ratio cannot be computed entirely from the dollar amounts on the financial statements; additional information contained in the footnotes is also required. Reported income before taxes, the numerator, can be taken directly from the income statement. Taxable income, the denominator, must be computed indirectly, as follows:

Taxable Income = Current Year's Tax Liability/The Effective Income Tax Rate

Both the current year's tax liability and the effective income tax rate are required disclosures under GAAP and can be found in the footnotes. ¹⁰ The following excerpt is selected information taken from the footnotes of General Electric's 2008 annual report, followed by the calculation of GE's conservatism ratio in Figure 10B–5 (dollars in millions).

Footnote 7. Provision for Income Taxes

	2008	2007
Current tax expense	\$2,336	\$3,498
Deferred tax expense	(1,284)	657
Tax expense	1,052	4,155
Actual income tax rate	5.5%	15.6%

^{10.} If the current year's tax liability is not immediately apparent in the footnotes, it can also be computed by subtracting the change in deferred income taxes on the balance sheet from the tax expense reported on the income statement. Increases (decreases) in net deferred income tax liabilities during the year should be subtracted from (added to) tax expense as reported on the income statement.

FIGURE 10B-5

The conservatism ratio of General Electric (dollars in millions) Conservative ratio computation (2008):

Taxable income = Current year's tax liability/Effective tax rate \$42,473 = \$2,336 / .055

Conservatism ratio = Reported income before taxes/Taxable income 0.51 = \$21,516* / \$42,473

The conservatism ratio provides a quick way to assess how conservative management's reporting choices have been in a particular year. Much more important, however, are the reasons and activities that explain the difference between reported income and taxable income, and these can be identified only through a close study of the footnotes.



The conservatism ratio for General Electric decreased from 1.13 in 2007 to 0.51 in 2008. Briefly explain what may have caused the change and how this information might be helpful to an analyst.

REVIEW PROBLEM

Before adjustments and closing on December 31, 2011, the financial records of Martin Brothers indicated the following balances:

Cash	\$23,000	Accounts payable		\$13,000
Accounts receivable	14,000	Short-term notes	\$10,000	
Inventory	32,000	Less: Discount on notes	1,000	9,000
		Unearned revenue		3,000
		Other current liabilities		13,000
Total current assets	<u>\$69,000</u>	Total current liabilities		\$38,000

The terms of an outstanding long-term note payable state that Martin must maintain a current ratio of 1.5, or the note will be in default. The current ratio computed from the information above is 1.82 (\$69,000 \div \$38,000). However, the following transactions are not reflected in the above balances:

- 1. Merchandise purchased on account for \$5,000 was in transit as of December 31, 2011. The terms of the purchase were FOB shipping point.
- 2. One-half of the interest on the \$10,000 short-term note payable should be accrued as of December 31.
- 3. A \$4,000 installment on a long-term debt will be due on March 31, 2012. Martin Brothers intends to withdraw \$4,000 from a fund, listed on the balance sheet as a long-term investment, to meet the payment.
- 4. One-third of the unearned revenue has been earned as of December 31.
- 5. Wages in the amount of \$4,000 are owed as of December 31. Federal income and social security taxes withheld on these wages equal \$800 and \$400, respectively.
- 6. The total income tax liability for 2011 was estimated at year-end to be \$34,000. Income tax payments during the year totaled \$32,000.
- 7. Albinus, Inc. brought suit against Martin Brothers early in 2011. As of December 31, Martin's legal counsel estimates that there is a 50 percent probability that Martin will lose the suit in the amount of \$8,000. If Martin loses the suit, payment will be due within the next year.

^{*}Reported on the 2008 income statement

The journal entry, if necessary, for each additional transaction and the current ratio after all adjustments have been recorded are as follows:

Trans- action	Current Assets	Journal Entry			Current Liabilities
1.	\$69,000 +5,000	Inventory (IA)	5,000		\$38,000
1.	+5,000	Inventory (+A) Accounts Payable (+L)	5,000	5,000	+5,000
2.		Interest Expense (E, -RE) Discount on Note (+L)	500	500	+500
3.		No entry—not payable from current assets.			
4.		Unearned Revenue (-L) Earned Revenue (R, +RE)	1,000	1,000	(1,000)
5.		Wage Expense (E, -RE) Federal Income Tax Payable (+L) Social Security Tax Payable (+L) Wages Payable (+L)	4,000	$ \begin{array}{c} 800 \\ 400 \\ 2,800 \end{array} $	+4,000
		Tax Expense (E, -RE) Social Security Tax Payable (+L)	400	400	+400
6.		Income Tax Expense (E, -RE) Income Tax Payable (+L) Recorded income tax liability	2,000	2,000	+2,000
7.		Depends upon whether a 50 percent probability is considered "reasonably possible" or "probable."			
		If the loss is considered "reasonably possible," it is only disclosed and not included as a current liability.			
		If the loss is considered "probable," the contingent loss is accrued with the following journal entry:			
		Contingent Loss (E, -RE) Contingent Liability (+L)	8,000	8,000	+8,000
	\$74,000	Total current assets Total current liabilities: Not including contingent loss Including contingent loss			\$48,900 \$56,900
Current ratio not including contingent loss = 1.51 (\$74,000/\$48,900) Current ratio including contingent loss = 1.30 (\$74,000/\$56,900)					

Martin Brothers will be in default on the long-term liability if the contingent loss is accrued. The current ratio (1.30) will be below the ratio required in the debt covenant (1.5). If the contingent loss is only disclosed, the 1.51 current ratio will meet the requirements of the covenant.

SUMMARY OF KEY POINTS

Definition of a liability.

The FASB has defined liabilities as "probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events." All liabilities appearing on the balance sheet should have three characteristics in common: (1) They should be present obligations that entail settlements by probable future transfers or uses of cash, goods, or services; (2) they should be unavoidable obligations; and (3) the transaction or event obligating the enterprise must have already happened.

Economic consequences associated with reporting liabilities on the financial statements.

Disclosing a liability on the balance sheet affects important financial ratios (e.g., current ratio, debt/equity, debt/assets) that are used by shareholders, investors, creditors, and others (1) to assess the financial performance and condition of a company and (2) to direct and control the actions of managers through contracts. Each of these parties has an economic interest in the amount of debt that a company must pay. Financial ratios, which use balance sheet liabilities, are also found in debt contracts to protect creditors by limiting future borrowings, dividend payments, and other management actions. Such economic consequences create incentives that encourage managers in certain situations to either understate or overstate liabilities.

O Determinable and contingent liabilities.

Determinable liabilities can be precisely measured, and the amounts of cash needed to satisfy the obligations and the dates of payment are reasonably certain. Examples include accounts and short-term notes payable, dividends payable, unearned revenues, third-party collections, and accrued liabilities. Determinable liabilities can also be conditional on certain events. Examples include liabilities associated with income tax and employee incentive compensation. Contingent liabilities result from existing conditions that can lead to negative outcomes in the future, depending on the occurrence of given events. Examples include lawsuits, uncollectibles, and warranties.

Current liabilities.

Current liabilities are obligations that are expected to require the use of current assets or the creation of other current liabilities. They include obligations to suppliers, short-term notes payable, current maturities of long-term debts, dividends payable to shareholders, unearned revenues, third-party collections, periodic accruals, certain conditional liabilities, potential obligations related to pending or threatened litigation, and product warranties.

Bonus systems and profit-sharing arrangements and the reporting incentives they create.

Bonus systems are popular because they provide a means for shareholders to induce management and other employees to act in a manner consistent with the objectives of the shareholders. Such incentives are created by basing compensation on profits. Managers have some control, however, over the measure of profits through operating, investing, and financing decisions, the choice of accounting methods, estimates, assumptions, and the timing of accruals. They can use this control to increase their bonus compensation.

Methods used to account for contingencies.

Contingencies can be divided into two categories: gain contingencies and loss contingencies. Gain contingencies are rarely accrued and are only disclosed in the footnotes when they are highly probable. The probability of a loss contingency should be classified as either remote,

reasonably possible, or highly probable. If the probability is remote, the loss need not be disclosed. If the event is reasonably possible, the potential loss and all relevant information about it should be disclosed in the footnotes. If the event is viewed as highly probable and the amount of the loss can be estimated, the potential loss and associated liabilities should be accrued on the financial statements and described in the footnotes. When a sale is made that includes a warranty, the sale is recorded. Because the warranty liability is highly probable and can be estimated with reasonable accuracy, warranty expense and the contingent warranty liability should be recognized in the amount of the estimated future warranty costs at the same time. As the warranty costs are paid, the contingent liability is reduced.

KEY TERMS

Note: Definitions for these terms are provided in the glossary at the end of this text.

Commercial paper (p. 445)
Conservatism ratio (p. 465)
Debt ratio (p. 458)
Defined benefit plan (p. 458)
Defined contribution plan (p. 458)
Determinable current liabilities (p. 444)
Employment Retirement Income Security
Act (ERISA) (p. 459)
Face value (p. 443)

Gain contingency (p. 451) Line of credit (p. 445) Loss contingency (p. 451) Maturity date (p. 445) Open account (p. 444) Pension (p. 457) Provisions (p. 456) Warranty (p. 455)

ETHICS in the Real World

no point within the range is more likely than any other. This policy ensures that the expense for environmental costs appearing on the income statement is as low as reasonably possible.

Earlier in the chapter we noted that FMC Corporation carries liabilities for environmental cleanup. The company estimates environmental expenses by choosing the lower end of the range of estimates in cases where **ETHICAL ISSUE** Is it ethical for a company to choose the lower end of a range when estimating the level of expense to record for contingent losses such as environmental costs?

INTERNET RESEARCH EXERCISE

The costs associated with future environmental cleanup are significant, and companies like Waste Management, introduced at the beginning of the chapter, deal with estimating these costs continually. *SFAS No. 5* provides some guidance on accounting for these costs. When was the standard issued? Summarize its contents, and explain how it applies to the situation faced by Waste Management. You can begin your search at the FASB's home page (www.FASB.org).

BRIEF EXERCISES

REAL DATA

BE10-1

Cash flow and accruals Merck & Co. declared dividends (dollars in millions) of \$3,250.4 (2008), \$3,310.7 (2007), and \$3,318.7 (2006). Cash payments for dividends reported on the statement of cash flows for the three years were \$3,278.5 (2008), \$3,307.3 (2007), and \$3,322.6 (2006). Dividends payable at the end of 2007 totaled \$831.1.

- a. Briefly explain why dividends on the statement of shareholders' equity do not equal dividends on the statement of cash flows.
- b. What kind of liability is dividends payable?
- c. Calculate dividends payable at the end of 2008.

REAL DATA

BE10-2

Inferring financial information

The following information was taken from the 2008 annual report of Target Corporation (dollars in millions):

	2008	2007
INCOME STATEMENT		
Cost of goods sold	\$44,157	\$42,929
BALANCE SHEET		
Inventory	6,705	6,780
Trade accounts payable	6,337	6,721

- Compute the inventory purchases made by Target during 2008. Record a single entry that reflects these purchases.
- b. How much cash did Target pay to its suppliers in 2008? Record a single entry that reflects these payments.

REAL DATA

BE10-3

Cash payments for environmental cleanup

Monsanto's 2008 annual report stated that the company's liabilities for environmental remediation and litigation contingencies are \$262 million as of 8/31/09 (\$272 million as of 8/31/08).

- a. Describe how the liabilities affected the basic accounting equation.
- b. What accounting principle is being followed by Monsanto? Explain.
- c. Assume \$25 million was actually spent in 2009 to remediate environmental problems. Draw a T-account and reconstruct 2009 changes for contingencies.

REAL DATA

BE10-4

Cash flow implications

Target Corporation's 2008 financial statements included the following items (dollars in millions):

INCOME STATEMENT:

Cost of sales	\$44,157	
STATEMENT OF CASH FLOWS (OPERATING SECTION):		
Increase in accounts receivable	458	
Decrease in inventory	77	
Decrease in accounts payable	389	

- a. Assuming that accounts payable refers only to inventory suppliers, compute the cash payments made by Target during 2008 to inventory suppliers.
- b. Review the changes in the current accounts above and comment on the cash flow implications to Target (i.e., did they help to increase or decrease cash flows?).

EXERCISES

E10-1

Why are current liabilities carried at face value instead of present value? Winslow Enterprises reports \$40,000 in accounts payable on the balance sheet as of December 31, 2011. These payables, on average, will be paid in ten days.

- a. Assuming a 12 percent annual discount rate, approximate the present value of the cash outflows associated with the accounts payable. (*Note*: Knowledge of present value [Appendix A] is required to do this exercise.)
- b. Why are accounts payable carried on the balance sheet at face value instead of present value?

E10-2

Financing with long-term debt, contract terms, and the current ratio Darrington and Darling borrowed \$100,000 from Commercial Financing to finance the purchase of fixed assets. The loan contract provides for a 12 percent annual interest rate and states that the principal must be paid in full in ten years. The contract also requires that Darrington and Darling maintain a current ratio of 1.5:1. Before Darrington and Darling borrowed the \$100,000, the company's current assets and current liabilities were \$130,000 and \$80,000, respectively.

- a. Compute the company's current ratio if it invests \$50,000 of the borrowed funds in fixed assets and keeps the rest as cash or short-term investments. To what dollar amount can current liabilities grow before the company violates the debt contract?
- b. Compute the company's current ratio if it invests \$80,000 of the borrowed funds in fixed assets and keeps the rest as cash or short-term investments. To what dollar amount can current liabilities grow before the company violates the debt contract?
- c. Compute the company's current ratio if it invests the entire \$100,000 of the borrowed funds in fixed assets. To what dollar amount can current liabilities grow before the company violates the debt contract?

E10-3

Accruals, the current ratio, and net income

Lily May Electronics recognizes expenses for wages, interest, and rent when cash payments are made. The following related cash payments were made during December 2011.

1. December 1 Paid \$1,100 for rent to cover the subsequent twelve months.

2. December 5 and 20 Paid wages in the amount of \$7,500. Wages in the amount of

\$7,500 are paid on the fifth and the twentieth of each month for the fifteen days just ended. The next payment will be on January 5,

2012.

3. December 15 Paid \$600 interest on an outstanding note payable. The note has face value of \$10,000 and a 12 percent annual interest rate. Inter-

est payments in the amount of \$600 are made every six months.

As of December 31, the current assets and current liabilities reported on Lily May's balance sheet were \$24,000 and \$15,000, respectively. Lily May's income statement reported net income of \$7,500.

Compute Lily May's current ratio and net income if the company were to account for wages, interest, and rent on an accrual basis.

E10-4

Short-term notes payable and the actual rate of interest On December 1, Spencer Department Store borrowed \$19,250 from First Bank and Trust. Spencer signed a ninety-day note with a face amount of \$20,000. The interest rate stated on the face of the note is 15 percent per year.

- a. Provide the journal entry recorded by Spencer on December 1.
- b. Provide the adjusting entry recorded by Spencer on December 31 before financial statements are prepared. Show how the note payable would be disclosed on the December 31 balance sheet.
- c. Compute the actual annual interest rate on the note. (*Hint:* Note that Spencer had the use of \$19,250 only over the period of the loan.)
- d. Why is the actual interest rate different from the rate stated on the face of the note?

E10-5

Current maturities and debt covenants

On January 1, 2007, Lacey Treetoppers borrowed \$300,000, which is to be paid back in annual installments of \$20,000 on December 30 of each year.

- a. Assuming that Lacey has met all payments on a timely basis, how should this liability be reported on the December 31, 2011, balance sheet?
- b. Assume that during December of 2011, the management of Lacey realizes that including the upcoming \$20,000 installment as a current liability reduces the company's current ratio below 2:1, the ratio required in a long-term note payable signed by the company. Discuss how management might be able to avoid classifying the current maturity as a current liability.

E10-6

Gift certificates and unearned revenue

Norsums Department Store sells gift certificates that are redeemable in merchandise. During 2011, Norsums sold gift certificates for \$88,000. Merchandise with the total price of \$52,000 was redeemed during the year. The cost of the sold merchandise to Norsums was \$32,000. Norsums sold gift certificates for the first time in 2011.

- a. Record the sale of the gift certificates.
- Record the redemption during 2011. Assume that Norsums uses the perpetual inventory method.
- c. Compute the balance in the unearned revenue account as of December 31, 2012, assuming that gift certificates were sold for \$60,000 in 2012 and merchandise with a total price of \$80,000 was redeemed.

REAL DATA

Inferring a cash payment

The following information was taken from the 2008 annual report of Bed Bath & Beyond, a leading household retailer (dollars in thousands).

	2008	2007
Cost of goods sold	\$4,335,104	\$4,123,711
Inventory	1,642,339	1,616,981
Accounts payable	514,734	570,605

- a. Assume that accounts payable reflects only accounts with inventory suppliers, and compute the cash payments made to suppliers during 2008.
- b. Would this dollar amount be disclosed on the statement of cash flows? Explain.

E10-8

Gain and loss contingencies

Zeus Power has brought suit against Regional Supply in the amount of \$825,000 for patent infringement. As of December 31, the suit is in process, and the attorneys have determined that there is a greater than 50 percent chance that Zeus Power will win the entire \$825,000.

- a. How should Zeus Power account for this situation?
- b. How should Regional Supply account for the situation? Briefly describe some of the factors that might affect how Regional Supply chooses to account for this situation.
- c. Why would the two companies account for the same facts in different ways?

E10-9

Bonus plans and contingent losses

Jordan Brothers recently instituted a bonus plan to pay its executives. The plan specifies that net income must exceed \$200,000 before any bonus payments are made. Cash in the amount of 10 percent of net income in excess of \$200,000 is placed in a bonus pool, which is to be shared evenly by each of the executives. Ignore income taxes, and assume that the bonus payment is not included as an expense in the calculation of net income.

- a. Briefly describe why a company would institute a bonus plan, and compute the amount in the bonus pool if Jordan Brothers shows net income of \$300,000. Prepare the journal entry that would be recorded to reflect the bonus liability at the end of the year.
- b. How much is in the bonus pool if Jordan Brothers shows net income of \$180,000? Assume that Jordan Brothers is being sued for \$60,000 as of the end of the year. The company's legal counsel believes that there is an 80 percent chance that Jordan will

lose the suit and that the entire \$60,000 will have to be paid. Assume also that the suit was ignored when the \$180,000 net income was computed. Why might Jordan's management wish to accrue the loss from the suit in the current year instead of simply disclosing it?

E10-10

Warranty costs: Contingent losses or expense as incurred? During 2011, Seagul Outboards sold 200 outboard engines for \$250 each. The engines are under a one-year warranty for parts and labor, and from past experience, the company estimates that, on average, warranty costs will equal \$20 per engine. As of December 31, 2011, 50 engines had been serviced at a total cost of \$1,400. During 2012, engines were serviced at a total cost of \$2,600. Assume that all repairs used cash.

- a. Prepare the journal entries that would be recorded at the following times:
 - (1) During 2011 to record the sale of the engines.
 - (2) During 2011 to accrue the contingent loss on warranties.
 - (3) During 2011 and 2012 to record the actual warranty cost incurred.
- b. Assume that Seagul chose not to treat the warranty costs as contingent losses. Instead, it chose to expense warranty costs as they were paid. Compute the total net income for 2011 and 2012 for each of the two accounting treatments.

REAL DATA

E10-11

Deferred revenues and cash receipts

Southwest Airlines is paid in advance for its ticket sales, recognizing a deferred revenue, called air traffic liability, when it receives the cash. The liability is then converted to revenue when the passenger takes the flight. During 2008 Southwest recognized passenger revenues in the amount of \$10.5 billion. On the balance sheet Southwest reported air traffic liabilities of \$963 million and \$931 million as of the end of 2008 and 2007, respectively.

- Explain why Southwest does not recognize revenue when it receives the payment from its customers.
- b. What kind of a liability is air traffic liability? Discuss whether it should be considered current or long-term.
- c. Compute the cash received by Southwest from passengers during 2008.

E10-12

Appendix 10A:
Pension
contributions and
unfunded pension
liability

Seasaw Seasons instituted a defined benefit pension plan for its employees three years ago. Each year since the adoption of the plan, Seasaw has contributed \$16,000 to the pension fund, which is managed by Fiduciary Trust Associates. As of the end of the current year, it was estimated that contributions of \$58,000 would have been necessary to maintain a fund large enough to provide the benefits promised to the employees when they retire.

- a. Prepare the journal entries that were recorded by Seasaw as it contributed cash to the pension fund.
- b. How much pension liability should be recorded on Seasaw's balance sheet as of the end of the current year?

E10-13

Appendix 10B: Deferred taxes and the tax rate Swingley Company uses an accelerated method to depreciate its fixed assets for tax purposes and the straight-line method for financial reporting purposes. In 2011, the accelerated method recognized depreciation of \$35,000, while the straight-line method recognized depreciation of \$20,000. Taxable income and net income before taxes for that year were \$65,000 and \$80,000, respectively.

- a. If the federal income tax rate is 35 percent, prepare the journal entry recorded by Swingley to accrue its 2011 tax liability.
- b. If the federal income tax rate is 30 percent, prepare the journal entry recorded by Swingley to accrue its 2011 tax liability.
- c. Briefly explain why the deferred income tax account is considered a liability on the balance sheet and why it is less when the tax rate is 30 percent rather than 35 percent.

E10-14

Appendix 10B: Conservatism ratio

The following information was taken from the annual report of Busytown Industries.

	2011	2010
BALANCE SHEET		
Deferred income tax liability	\$ 9,700	\$8,300
INCOME STATEMENT		
Income before taxes	\$68,000	
Income tax expense	(20,400)	
Net income	\$47,600	
Effective income tax rate: 38%		

- Compute Busytown's conservatism ratio, and comment on how conservative the company's reporting methods are.
- b. Explain why the conservatism ratio provides a measure of the extent to which a company's financial accounting methods are conservative, and provide examples of accounting treatments that may increase or decrease the ratio.

E10-15

Appendix 10B: Conservatism ratio The following information was taken from the annual report of Sega-Venus Enterprises.

	2011	2010
BALANCE SHEET		
Deferred income tax liability	\$ 18,300	\$19,400
INCOME STATEMENT		
Income before taxes	\$145,500	
Income tax expense	(54,000)	
Net income	\$ 91,500	
Effective income tax rate: 34%		

- Compute Sega-Venus's conservatism ratio, and comment on how conservative the company's reporting methods are.
- b. Explain why the conservatism ratio provides a measure of the extent to which a company's financial accounting methods are conservative, and provide examples of accounting treatments that may increase or decrease the ratio.

PROBLEMS

P10-1

Distinguishing current liabilities from long-term liabilities Beth Morgan, controller of Boulder Corporation, is currently preparing the 2011 financial report. She is trying to decide how to classify the following items.

- 1. Account payable of \$170,000 owed to suppliers for inventory.
- 2. A \$60,000 note payable that matures in three months. The company is planning to acquire a five-year loan from its bank to pay off the note. The bank has agreed to finance the note.
- 3. A \$500,000 mortgage: \$75,000 payable within twelve months, and the remaining \$425,000 to be paid over the next six years.
- 4. The sum of \$8,000 owed to the phone company for service during December.
- 5. Advances of \$25,000 received from a customer. The contract between the customer and Boulder Corporation states that if the company does not deliver the goods within six months, the \$25,000 is to be returned to the customer.
- 6. The sum of \$15,000 due the federal government for income tax withheld from employees during the last quarter of 2011. The government requires that withholdings be submitted by the end of the next quarter to the Internal Revenue Service.

- 7. A \$125,000 note payable: \$30,000 is payable within twelve months, and the remaining \$95,000 is to be paid over the next two years. Boulder Corporation plans to issue common stock to the creditor for the portion due during the next twelve months.
- 8. The company declared a cash dividend of \$50,000 on December 29, 2011. The dividend is to be paid on January 21, 2012.

REQUIRED:

- a. Classify each of the items as a current liability or as a long-term liability. (*Note:* Some items may be classified partially as current and partially as long-term.)
- b. Compute the total amount that should be classified as current liabilities.
- c. Compute the total amount that should be classified as long-term liabilities.

P10-2

Recognizing current liabilities can restrict dividend payments Linton Industries borrowed \$500,000 from Security Bankers to finance the purchase of equipment costing \$360,000 and to provide \$140,000 in cash. The note states that the loan matures in twenty years, and the principal is to be paid in annual installments of \$25,000. The terms of the loan also indicate that Linton must maintain a current ratio of 2:1 and cannot pay dividends that will reduce retained earnings below \$200,000. The balance sheet of Linton, immediately prior to the bank loan and the purchase of equipment, follows:

Current assets	\$ 120,000	Current liabilities	\$ 100,000
Noncurrent assets	1,500,000	Long-term liabilities	300,000
		Capital stock	1,000,000
		Retained earnings	220,000
		Total liabilities and	
Total assets	\$1,620,000	shareholders' equity	\$1,620,000

REQUIRED:

The board of directors of Linton is about to declare a dividend to be paid to the shareholders early next year. After accepting the loan and purchasing the equipment, how large a dividend can the board pay and not violate the terms of the debt covenant?

P10-3

Recognizing current liabilities and violating debt covenants Before adjustments and closing on December 31, 2011, the current accounts of Seymour and Associates indicated the following balances:

	Debit	Credit
Cash	\$40,000	
Accounts receivable	50,000	
Allowance for doubtful accounts	ŕ	2,000
Inventory	52,000	
Accounts payable	ŕ	30,000
Unearned revenues		25,000
Warranty liabilities		5,000
Other current liabilities		10,000

The terms of an outstanding long-term note payable state that Seymour must maintain a current ratio of 2:1 or the note will become due immediately. The following items are not reflected in the balances above:

- 1. Bad debt losses in the amount of 6 percent of the outstanding accounts receivable balance are expected.
- 2. The warranty liability on outstanding warranties is estimated to be \$12,000.
- 3. Forty percent of the unearned revenue had been earned as of December 31.
- 4. Five thousand dollars, listed above under "other current liabilities," is part of a line of credit and is expected to be immediately refinanced on a long-term basis when due.
- 5. The total income tax liability for 2011 was estimated at year-end to be \$23,000. Estimated tax payments during the year totaled \$20,000.

6. Trademans, Inc. brought suit against Seymour early in 2011. As of December 31, Seymour's legal counsel estimates that there is a 60 percent probability that the suit will be lost in the amount of \$10,000. If the suit is lost, payment will most likely be due in the next year.

REQUIRED:

- a. Prepare the journal entries that would be recorded (if necessary) for each of the six items listed.
- b. After preparing the journal entries, compute the company's current ratio, assuming that the contingent liability described in (6) is not accrued.
- c. After preparing the journal entries, compute the company's current ratio, assuming that the contingent liability described in (6) is accrued.
- If you were Seymour's auditor, would you require that the contingent liability be accrued? Discuss.

P10-4

Issues surrounding the recognition of a contingent liability While shopping on October 13, 2011, at the Floor Wax Shop, Tom Jacobs slipped and seriously injured his back. Mr. Jacobs believed that the Floor Wax Shop should have warned him that the floors were slick; hence, he sued the company for damages. As of December 31, 2011, the lawsuit was still in progress. According to the company's lawyers, it was probable that the company would lose the lawsuit. The lawyers also believed that the company could lose somewhere between \$250,000 and \$1.5 million, with a best guess of the loss at \$742,000. The lawsuit was eventually settled in favor of Mr. Jacobs on August 12, 2012, for \$690,000.

REQUIRED:

- a. Discuss the issues that the Floor Wax Shop must address in deciding how to report this lawsuit in its 2011 financial report.
- b. If you were auditing the Floor Wax Shop, how would you recommend that this lawsuit be reported in the 2011 financial report? Why?
- c. Assume that a contingent liability of \$742,000 is accrued on December 31, 2011. What journal entry would the company record on August 12, 2012, the date of the settlement?

P10-5

Accruing warranty costs before they are incurred

Arden's Used Cars offers a one-year warranty from the date of sale on all cars. From historical data, Mr. Arden estimates that, on average, each car will require the company to incur warranty costs of \$760. The following activities occurred during 2011:

1. February 2 Sold five cars.

Sold ten cars.

3. May 30 Incurred warranty costs of \$3,000 on four cars sold in 2010.

4. July 5 Sold eight cars.

5. September 2 Incurred warranty costs of \$5,000 on five cars sold in 2011.

6. November 15 Incurred warranty costs of \$6,000 on one car sold in 2011.

7. December 20 Sold twelve cars.

REQUIRED:

2. March 23

- a. Assume that the cars were sold for cash for an average of \$9,500. Prepare the entry to record the car sales during 2011 (combine all the sales and make one entry).
- b. Prepare the individual entries to record the warranty costs incurred. Assume that the breakdown of warranty costs is 40 percent wages (paid in cash) and 60 percent parts.
- c. Arden accrues its warranty liability with a single adjusting entry at year-end. Prepare that entry.
- d. Compute the year-end warranty liability. The beginning balance in the warranty liability account was \$3,500.
- e. Explain why accountants estimate the warranty expense in the year of sale instead of recording the expenses as the costs are incurred.

P10-6

Advertising campaigns can give rise to contingent liabilities

To kick off its 2011 advertising campaign, Rachel's Breakfast Cereal is offering a \$1 refund in exchange for five cereal box tops. The company estimates that the tops of 10 percent of the cereal boxes sold will be returned for the refund. The cereal boxes are sold for \$2.00 each. During 2011 and 2012, 20,000 and 28,000 cereal boxes are sold, respectively, and 1,500 and 2,000 box tops are received for refunds during 2011 and 2012, respectively.

REQUIRED:

- a. Prepare the journal entries to record the sale of the cereal boxes, the recognition of the contingent liability associated with the potential refunds, and the actual refund payments for 2011 and 2012.
- b. Compute the liabilities associated with the potential refunds as of the end of 2011 and 2012.

REAL DATA

P10-7

Restructuring charges and the statement of cash flows Pharmaceutical manufacturer Eli Lilly announced in the third quarter of 2009 that it was taking a \$425 million restructuring charge due to the sale of its Tippecanoe Laboratories unit. Of the total expense, the company indicated that \$364 million was related to "non-cash" asset impairment charges, with \$61 million coming from severance packages for certain Tippecanoe employees. The third quarter 2009 statement of cash flows (operating section) contains a line item added back to net income for "other, net" in the amount of \$364 million.

REQUIRED:

- a. Provide the entry made by Lilly to record the charge.
- b. Explain why the statement of cash flow contained the \$364 million entry.
- c. Assume Lilly's tax rate for 2009 was 26 percent. Compute the tax savings related to the charge.

P10-8

Appendix 10A:
Accruing and
funding pension
liabilities

Shelby Company instituted a defined benefit pension plan for its employees at the beginning of 2007. An actuarial method that is acceptable under generally accepted accounting principles indicates that the company should contribute \$40,000 each year to the pension fund to cover the benefits that will be paid to the employees. Shelby funded 80 percent of the liability in 2007 and 2008, 90 percent in 2009 and 2010, and 100 percent in 2011.

REQUIRED:

- a. Prepare the journal entries to accrue the pension liability and fund it for 2007, 2008, 2009, 2010, and 2011.
- b. Compute the balance in the pension liability account as of December 31, 2011.

P10-9

Appendix 10B: Deferred income taxes, changes in tax rates, and investment in long-lived assets Acme, Inc. purchased machinery at the beginning of 2007 for \$50,000. Management used the straight-line method to depreciate the cost for financial reporting purposes and the double-declining-balance method to depreciate the cost for tax purposes. The life of the machinery was estimated to be four years, and the salvage value was estimated as zero. Revenue less expenses other than depreciation (for financial reporting and tax purposes) equaled \$100,000 in 2007, 2008, 2009, and 2010. Acme pays income taxes at the rate of 35 percent of taxable income.

REQUIRED:

- a. Prepare the journal entries to accrue income tax expense and income tax liability for 2007, 2008, 2009, and 2010. Indicate the balance in the deferred income tax account as of the end of each of the four years.
- b. Assume that the federal government changed the tax rate to 20 percent at the beginning of 2009. Repeat the exercise in (a). Would it be appropriate to recognize a gain at the end of 2009 to reflect the tax rate decrease? Why or why not? If so, how much of a gain?
- c. Assume that Acme purchased additional machinery at the beginning of 2008 and 2010. Each purchase was for \$50,000, and each machine had a four-year estimated life and no salvage value. Once again, the straight-line depreciation method was used for reporting purposes and double-declining-balance for tax purposes. Repeat the exercise in (a) assuming a tax rate of 35 percent. Why is the deferred income tax account one of the largest liabilities on the balance sheets of many major U.S. companies?

P10-10

Appendix 10B: Conservatism ratio You are a security analyst for Magneto Investments and have chosen to invest in one firm from the semiconductor manufacturing industry. You have narrowed your choice to either Owen-Foley Company or Amerton Industries, firms of similar size and direct competitors in the industry. The following information was taken from their 2011 annual reports.

OWEN-FOLEY COMPANY	2011	2010
BALANCE SHEET		
Deferred income tax liability	\$ 18,400	\$16,600
INCOME STATEMENT		
Income before taxes	\$163,000	
Income tax expense	(52,000)	
Net income	\$111,000	
Effective income tax rate: 36%		
AMERTON INDUSTRIES	2011	2010
BALANCE SHEET		
Deferred income tax liability	\$ 18,800	\$19,800
INCOME STATEMENT		
Income before taxes	\$158,500	
Income tax expense	(53,500)	
Net income	\$105,000	
Effective income tax rate: 36%	<u> </u>	

REQUIRED:

On the basis of this information, explain which of the two firms seems to have the stronger earning power.

REAL DATA

Appendix 10B: Comparing conservatism ratios The following information was taken from the 2008 annual reports of Walgreens and The Limited (dollars in millions).

	Walgreens	The Limited
Net income before taxes	\$3,164	\$ 453
Income tax expense:		
Current	898	187
Deferred	260	46
Total	\$1,158	\$ 233
Effective tax rate	0.366	0.515

REQUIRED:

Compute the conservatism ratios for both companies and comment on the differences. Which company is more conservative, and why?

ISSUES FOR DISCUSSION

REAL DATA ID10-1

Debt covenants and reporting current liabilities

FedEx Corporation, a world leader in express mail services, reported the following in its May 31, 2009, financial statements (dollars in millions):

	5/13/09
Current assets	\$7,116
Current liabilities	4,524

The company's long-term debt contains restrictive covenants that require the maintenance of certain financial ratios. Assume that these covenants require that the company's current ratio be at least 1.0.

REQUIRED:

- a. What additional dollar value of current liabilities could have been reported as of May 31, 2009, without violating the debt covenant?
- b. List several current liabilities that management may have been able to control to ensure at year-end that the covenant was not violated, and explain how these liabilities could have been controlled.
- c. Explain what could happen if the company violated the covenant.
- d. Assume that at the end of 2009, FedEx considered a \$3 billion fleet aircraft purchase. Assume also that the company has the necessary cash. Should the company pay cash or should it purchase the aircraft using long-term debt, and why? Support your answer with calculations.

REAL DATA ID10-2

Receipts in advance: Measurement theory and financial statement effects Ingersoll-Rand manufactures specialized heavy-duty construction equipment. Included in a set of recent financial statements is the account "customers' advance payments," with a balance of over \$15 million. The notes to the financial statements indicate that, although payments are collected in advance from customers, revenues are recognized when products are shipped. Products are normally shipped within six months of the advance payments.

REQUIRED:

- a. On what financial statement and in which section of that statement would the account "customers' advance payments" be found?
- b. Explain the accounting treatment associated with this account in terms of the principles of revenue recognition and matching.
- c. Under this accounting treatment, how are important financial ratios, such as earnings per share, the current ratio, and the debt/equity ratio, affected (1) when the advance payments are received and (2) when the related goods are shipped?

REAL DATA ID10-3

Contingency reporting

The 2008 annual report for HCA, Inc., a nationwide chain of hospitals, contains the following statement in the footnotes to the financial statements:

We operate in a highly regulated and litigious industry.

Furthermore, the company discloses,

Reserves for professional liability risks were \$1.387 billion and \$1.513 billion at December 31, 2008 and 2007, respectively. The current portion of this reserve, \$279 million and \$280 million at December 31, 2008 and 2007, respectively, is included in "other accrued [liabilities]" in the consolidated balance sheet. Provisions for losses related to professional liability risks were \$175 million, \$163 million and \$217 million for 2008, 2007, and 2006, respectively (and) are included in "other operating expenses" in our consolidated income statement. Provisions for losses related to professional liability risks are based upon actuarially determined estimates. Loss and loss expense reserves represent the estimated ultimate net cost of all reported and unreported losses incurred through the respective consolidated balance sheet dates.

REQUIRED:

- a. The term *reserve* refers to accrued liabilities. What portion of the reserves reported in 2008 and 2007 is listed in the current liability section of the balance sheet?
- b. What entries were made in 2006, 2007, and 2008 to record additional reserves?
- c. Estimate the cash payments made during 2008 to cover professional liability risks.
- d. Discuss how management could manage earnings in this industry.

REAL DATA

ID10-4

Contingency reporting in the tobacco industry

Several years ago in its annual report, Philip Morris Companies, a major manufacturer of tobacco and food products, included footnote 16, which was almost five pages long. It consisted of a number of separate sections covering such topics as an overview of tobacco-related litigation, the type and number of cases, pending and upcoming trials, verdicts in individual cases, litigation settlements, smoking and health litigation, health care and cost-recovery litigation, and certain other tobacco-related litigation. During the year, over 500 smoking and health-related cases had been filed against the company, an increase of 30 percent over the previous year and 200 percent over the year before that. The company booked a pretax charge of over \$3 billion, reducing reported net income to slightly over \$5 billion.

REQUIRED:

Discuss Philip Morris's disclosure and accrual in terms of (1) the methods used to account for loss contingencies, and (2) the potential economic consequences associated with the disclosure and accounting treatment.

REAL DATA

ID10-5

Unreported assets

Lifschultz Industries, a small gas meter company, once reported a book value of less than zero (i.e., reported liabilities exceeded reported assets). Yet, in late March, the company's share price skyrocketed on news that it was pursuing a massive antitrust and racketeering law-suit against three of the country's biggest trucking companies: Consolidated Freightways, Roadway Services, and Yellow Freight Systems. Lifschultz alleged that these trucking companies conspired to engage in anticompetitive activity, driving it out of the trucking business. The suit, filed in U.S. district court in South Carolina, sought \$1.8 billion. The three trucking companies said nothing about the suit publicly other than to footnote it as a "contingency" in their annual reports.

REQUIRED:

- a. Explain how Lifschultz can report negative book value and, at the same time, have its shares so highly valued in the stock market.
- b. Explain the differences between how Lifschultz should account for the suit and how the three trucking companies should account for it.
- Provide economic reasons why the plaintiff and defendants account for the same dispute differently.

REAL DATA ID10-6

The economic consequences of a technical default

The following quote refers to the problems of Campeau Corporation, a Canadian-based retail empire that later declared bankruptcy. At the time, Campeau's department store chains included Bloomingdale's, Rich's, Burdines, Abraham & Strauss, and Lazarus.

Campeau Corp.'s announcement Friday that its bankers believe it has technically defaulted on \$2.34 billion in debt probably will freeze new spring shipments, apparel makers say. Citibank, leader of the bank syndicate providing much of Campeau's debt financing, informed Campeau by letter last week that Campeau had violated certain covenants on debt and unless Campeau can remedy the default by December 31, Citibank stated it may demand full repayment of the loans.

REQUIRED:

- a. What is a "technical default," and how did Citibank react to it?
- b. Explain why apparel makers might "freeze new shipments" and why this presented great problems for the Campeau organization.

REAL DATA ID10-7

Warranties and contingencies

Agilent Technologies, Inc., a diversified technology company, sells extended warranties for the products and services provided to customers, deferring the revenue until future recognition. The following information about the extended warranty liability account was taken from Agilent's annual report (dollars in millions):

	2009	2008
Beginning balance	\$29	\$29
Deferral of revenue	50	51
Recognition of revenue	(51)	(51)
Ending balance	\$28	\$29

REQUIRED:

- a. Draw a T-account for the extended warranty liability, record the activity disclosed above in that account, and explain how the entries represent an application of the matching principle.
- b. Explain how the cash flow for warranties is different from the profitability of warranties.

REAL DATA ID10-8

Deferred revenue

When Microsoft Corporation released earnings for its third quarter of fiscal 2007, profits hit a record \$4.9 billion, driven in large part by revenue that was 32 percent higher than the previous year. However, the \$14.4 billion in sales included \$1.67 billion in deferred revenue from the redemption of upgrade coupons for the company's recently released operating system, Vista, that were never used. The coupons for Vista upgrades were given to customers prior to the release of the new program.

REQUIRED:

- a. What is meant by "deferred revenue" and where does it fit in the financial statements?
- b. Discuss the cash flow implications of the \$1.67 billion in deferred revenue for Microsoft in the current and past fiscal quarters.
- c. How do you think an analyst following the company would react to the above earnings announcement? How would the deferred revenues factor into the analysis?

REAL DATA ID10-9 Current liabilities

Abbott Laboratories, a major pharmaceutical company, reported the following current liabilities in its 2009 annual report (dollars in millions).

	2009	2008	2007
Current liabilities:			
Short-term borrowings	\$ 4,978	\$ 1,691	\$1,827
Trade accounts payable	1,281	1,352	1,219
Employee compensation	1,117	1,011	860
Other accrued liabilities	4,399	5,133	3,713
Dividend payable	621	559	505
Income tax payable	442	805	80
Current portion of long-term debt	211	1,041	899
Total current liabilities	\$13,049	\$11,592	\$9,103

REQUIRED:

- a. Briefly describe the transaction or event underlying each of the liabilities listed above.
- b. What kinds of assets are expected to be used to meet these obligations?
- c. Does Abbott plan in the foreseeable future to refinance any of these liabilities by issuing long-term debt? Explain.
- d. Explain how proper management of these current liabilities can help Abbott improve its return on equity.

REAL DATA ID10-10

Using executive compensation disclosures

The SEC requires additional information in the proxy statements that describe the compensation packages of a company's top executives. A *Wall Street Journal* article published soon after the requirement became effective offered a list of recommendations about how shareholders might use this additional information. Included in the list: Compare executive pay with shareholder returns, check to see if executive compensation is linked to stock market performance, find out how much company stock is owned by the executives, and beware of changes in the auditor.

REQUIRED:

Explain what a proxy statement is, and discuss how each of the recommendations listed above may provide useful information to the shareholders.

REAL DATA ID10-11

"Taking a bath" during bankruptcy proceedings A major defense contractor, LTV, faced with huge liabilities, once declared Chapter 11 bank-ruptcy protection. Under Chapter 11, a company continues to operate but is protected from creditors while it tries to work out a reorganization plan. At that time, the company's management chose to accrue a \$2.26 billion liability to reflect the potential cost of medical and life insurance benefits for its 118,000 current and retired employees, which was not required by generally accepted accounting principles. The *Wall Street Journal* reported that the company chose to recognize the charge because "if the company waited until after it negotiated new credit agreements and emerged from bankruptcy law proceedings before taking the \$2 billion charge, the additional liability could trigger violations of its debt covenants."

REQUIRED:

- a. Provide the journal entry to record the \$2.26 billion charge recognized by LTV.
- Explain how taking the charge before negotiating new credit agreements could avoid violating debt covenants.
- c. It was also reported that LTV took several other significant charges while it was under bankruptcy proceedings. In addition to its concern about debt covenants, in general, why might management have chosen to take these charges at this time?

REAL DATA ID10-12

Appendix 10B: Conservatism ratio The following information was taken from the 2009 annual report of Emerson, a leader in process management, technology, network power, and industrial automation (dollars in millions).

	2009	2008	2007	
Net income before taxes	\$2,417	\$3,591	\$3,093	
Income tax expense:				
Current	571	1,085	1,028	
Deferred	122	52	(64)	
Total	\$ 693	\$2,137	\$ 964	
Effective tax rate	28.7%	31.7%	31.2%	

REQUIRED:

Comment on whether Emerson's financial accounting methods have been conservative or aggressive across the three-year period.

REAL DATA ID10-13

Appendix 10B: Changes in expected tax rates and net income General Motors once posted net income of \$552 million, compared with a loss of \$112.9 million a year earlier. Over \$200 million of the profit was due to an accounting adjustment in its North American operations because its expected taxes turned out to be lower than it had anticipated in earlier periods. David Healy, an analyst with S.G. Warburg & Co., noted that "Cynics would say that since they couldn't do it in the auto department, they did it in the accounting department."

REQUIRED:

- a. Explain what Mr. Healy means.
- b. Explain how a change in expected tax rates can lead to a positive effect on reported earnings.
- c. Do you believe that the \$200 million gain represents an increase in the overall wealth of GM?

REAL DATA ID10-14

Patent infringement, contingencies, and the auditor The Internet phone company Vonage Holdings faced two separate patent infringement lawsuits initiated by Verizon and Sprint Nextel due to the technology used to provide Web-based communication services for its customers. The threat to Vonage's viability was severe, given its narrow business focus and relatively short business life. Verizon and Sprint Nextel are much larger and better established companies.

REQUIRED:

- a. What is a patent, and how is it accounted for on Verizon's and Sprint Nextel's financial statements?
- b. Where might a financial statement user find evidence of the suit on Vonage's financial statements, how might it account for this suit, and how might Vonage's external auditors react to this situation?

REAL DATA
ID10-15

Provisions under IFRS

The 2008 IFRS-based balance sheet published by Volkswagen AG, a well-known German automaker, listed an account called "provisions" (divided into current and non-current categories) with a total balance (in million euros) of 17,546 (2008) and 17,558 (2007). The footnotes to the financial statements included the following statement and account information.

"In accordance with International Accounting Standard (IAS) 37, provisions are recognized when an obligation exists to a third party as a result of a past event; where a future outflow of resources is probable; and when a reliable estimate can be made. Provisions . . . are recognized at their (expected) settlement value discounted to the balance sheet date. Discounting is based on market rates."

 December 31, 2007, balance:
 17,558

 Increases
 8,443

 Decreases
 (8,455)

 December 31, 2008, balance
 17,546

REQUIRED:

- a. Discuss differences between how provisions are accounted for under IFRS and how contingencies are accounted for under U.S. GAAP.
- b. Explain how the increases listed above (8,443) affected the basic accounting equation, and list what kinds of items might be reflected in the 8,443 increase amount.
- c. Explain how the decreases listed above (8,455) affected the basic accounting equation, and list what kinds of items might be reflected in the 8,455 decrease amount.

REAL DATA
ID10-16

The SEC Form 10-K of NIKE The SEC Form 10-K of NIKE is reproduced in Appendix C.

REQUIRED:

Review the NIKE SEC Form 10-K, and answer the following questions.

- a. What is working capital, and what is the trend in NIKE's working capital position in recent years?
- b. How much did working capital change as a percentage of total assets over that time period?
- c. What happened to NIKE's current ratio over the last year? What accounted for the change?
- d. What are the most important current liabilities reported by NIKE?
- e. Compute NIKE's accounts payable turnover (see Chapter 5) for the past two years. Comment on any change. (*Note:* The accounts payable at the end of 2007 totaled \$1,040.3)
- f. Is NIKE concerned with any major contingencies (see note 15)?
- g. Briefly describe the five largest accrued liabilities, and the basic form of the entry lending to their recognition on the balance sheet.
- h. (Appendix 10A). What kind of pension plan does NIKE provide for its employees? How much did the company contribute to the plan in the last three years?
- i. (Appendix 10B). Compute NIKE's conservatism ratio over the last three years. Comment on whether the company's financial reporting was conservative or aggressive across the three-year period.