

Chapter 9: Reporting and Interpreting Liabilities

CHAPTER SUMMARY

Liabilities are obligations of either a known or estimated amount. Detailed information about the liabilities of an entity is important to many decision makers, whether internal or external, to the enterprise, because liabilities represent claims against the resources of an entity. The existence and amount of liabilities sometimes are easy to conceal from outsiders. The accounting model and the verification by an independent CPA are the best assurances that all liabilities are disclosed.

Current liabilities are short-term obligations that will be paid within the coming year or the normal operating cycle of the business, whichever is longer. All other liabilities (except contingent liabilities) are reported as long-term liabilities. A contingent liability is a potential claim due to some event or transaction that has happened and may lead to a liability, but whether it will materialize as an effective liability is not certain because it depends on some future event or transaction. At the end of the accounting period, a contingent liability must be recorded (as a debit to a loss account and a credit to a liability account) if (a) it is probable that a loss will occur and (b) if the amount of the loss can be reasonably estimated. Contingent liabilities that are reasonably possible must be disclosed in the notes to the financial statements.

The current ratio and accounts payable turnover ratio are liquidity ratios which provides an indication of whether a company can pay its current obligations as they come due.

Often, future and present value concepts must be applied in accounting for liabilities. These concepts focus on the time value of money (i.e., interest). Future value is the amount that a principal amount will increase in the future due to compound interest. Present value is the amount that a future principal amount is worth today. It is computed by a process of compounding or discounting future cash flows. Future and present values are related to (a) a single amount or (b) a series of equal periodic amounts (called annuities). Typical applications of future and present values are to create a fund, determine the cost of an asset, account for notes payable, and account for installment debts and receivables.

CHAPTER OBJECTIVES

- LO1 Define, measure, and report current liabilities.
- LO2 Use the current ratio.
- LO3 Analyze the accounts payable turnover ratio.
- LO4 Report notes payable and explain the time value of money.
- LO5 Report contingent liabilities.
- LO6 Explain the importance of working capital and its impact on cash flows.
- LO7 Report long-term liabilities.
- LO8 Compute present values.
- LO9 Apply present value concepts to liabilities.

CHAPTER OUTLINE

I. UNDERSTANDING BUSINESS

1. Businesses finance the acquisition of their assets from funds supplied by creditors (debt) and funds provided by owners (equity). The mixture of debt and equity used by a business is called its capital structure.
2. The factors managers consider when selecting a capital structure are risk and cost.
 - a. Debt is more risky than equity because principal and interest payments must be made on debt.
 - b. Equity is less risky since dividend payments to owners are not legal obligations until declared by the board of directors.
3. Most companies include some debt (borrowed funds) in their capital structure because these funds may be used to earn a higher rate of return for the stockholders. Financial leverage is borrowing at one rate and earning at a different rate.
4. Companies determine the proper balance of short-term and long-term debt for their specific purposes.

II. LO1 DEFINE, MEASURE, AND REPORT CURRENT LIABILITIES.

A. Liabilities:

1. Liabilities are probable future sacrifices of economic benefits that arise from past transactions.
2. Liabilities are liquidated (paid off) by transferring assets or providing services to the creditor.
3. A liability is measured in terms of its cash equivalent (the cash that the creditor would accept to settle the liability) to settle the liability immediately.
 - a. Interest to be paid on the debt is not included initially because interest accrues over time.
 - b. After it has accrued, interest becomes a liability.
4. The list of liabilities on the balance sheet varies from one company to another.

B. Current Liabilities:

1. Current liabilities are short-term obligations that will be paid within the current operating cycle or one year, whichever is longer.
2. Specific operating activities of companies are usually financed, at least in part, by related current liabilities.
3. Current liability accounts that appear on most balance sheets:
 - a. Accounts Payable (A/P or Trade Payable)
 1. Accounts payable includes amounts that are the obligations to pay suppliers in the normal course of business for the purchase of goods and services.
 2. For many companies, trade credit is a relatively inexpensive way to finance the purchase of inventory because interest doesn't normally accrue on accounts payable.
 3. Credit terms provide for the due date of payments.
 - a. These terms may include cash discount provisions for early payment.
 - b. Interest does not normally accrue on A/P if paid within the credit period.
 4. It is advisable for a company to pay A/P before the credit period ends.
 - a. Late payments may jeopardize a positive working relationship with suppliers and threaten a source of quality goods and services.
 - b. Financial analysts consider timely payments to suppliers in evaluating the "health" of a company.

b. Accrued Liabilities

1. Accrued liabilities are recorded for expenses that have been incurred but have not been paid by the end of the accounting period. The expense is recognized in one period, but the payment is made in another period.
2. These liabilities are typically recorded as adjusting entries (matching principle) at the end of the period since no cash transaction has taken place.
3. Examples of accrued expenses include:
 - a. Accrued Taxes Payable
 - i. A current liability computed by applying the applicable tax rates to taxable income earned by corporations.
 - ii. The amount of income tax payable is the amount accrued but not paid at the end of the year.
 - b. Accrued Compensation and Related Costs
 - i. Accrued amounts associated with unpaid salaries and wages.
 - ii. They may be reported as part of accrued liabilities or as a separate item on the balance sheet.
 - iii. Salaries and wages payable are incurred but unpaid employee compensation.
 - iv. A company reports employee income taxes withheld as a current liability since the company is an agent of the government. The withholding amounts are to be remitted to the federal (and perhaps state and local) government at a specified time.
 - v. Payroll taxes include FICA (Social Security) tax. This liability arises from two sources. This tax is withheld from employees' gross wages based on a statutory percentage. This amount is also "matched" by the employer. Both the withholding and the matching amounts are current liabilities of the company. Additional types of payroll taxes may also be appropriate.
 - vi. Other liabilities may result from employee benefits such as accrued vacations. In conformity with the matching principle, the cost of vacation time must be recorded in the year the employee performs services to earn the vacation. Other benefits include retirement programs and health insurance.
 - c. Current Portion of Long-Term Debt
 - i. The distinction between current and long-term debt is important to managers and financial analysts since current debt must usually be paid within the next year. Sufficient cash is needed to pay current liabilities.
 - ii. If long-term debt is paid in installments, the amount due in the upcoming year is reclassified as a current liability. Also, when the payoff of long-term debt is due in the next accounting period, the entire amount is reclassified as a current liability.
 - d. Deferred Revenues
 - i. When a company collects cash before a product is delivered or a service is provided, a deferred or unearned revenue (a liability) is recorded.
 - ii. This is a liability to the company since the goods must be delivered or the service must be performed before revenue can be recognized (the revenue principle).
 - iii. If the promised act does not take place, the company must refund the money.

III. LO2 USE THE CURRENT RATIO.

- A. Liquidity: the ability of a company to pay current obligations.
- B. Current Ratio: a measure of liquidity.

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

C. Interpretation

- 1. Most companies use techniques for managing working capital. This is critical for the survival of a business.
- 2. The Current Ratio restates Working Capital as a ratio rather than as a flat number.
- 3. It shows the relationship of current assets to current liabilities rather than just the net.

IV. LO3 ANALYZE THE ACCOUNTS PAYABLE TURNOVER RATIO.

A. Accounts Payable Turnover Ratio

$$\text{Accounts Payable Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Accounts Payable}}$$

$$\text{Average Accounts Payable} = \frac{\text{AP balance at beginning of period} + \text{AP balance at end of period}}{2}$$

B. Interpretation

- 1. Evaluates effectiveness in managing payables; i.e., how quickly management is paying trade accounts.
- 2. A high ratio normally indicates that a company is paying its suppliers in a timely manner.
- 3. Cautions:
 - a. The A/P turnover ratio is an average based on all accounts payable.
 - b. Might not reflect reality if a company pays only some creditors on time.
 - c. Subject to manipulation, as managers can “catch up” on paying creditors at year-end to bring the ratio to an acceptable level.

V. LO4 REPORT NOTES PAYABLE AND EXPLAIN THE TIME VALUE OF MONEY.

A. Notes Payable

- 1. Many companies need to borrow to finance their operations.
- 2. The creditors are compensated for the use of the money they loan to businesses with interest.
- 3. Notes payable provide for interest over the lending term.
- 4. Notes payable are evidenced by written contracts that show all of the terms of the debt.
- 5. A note payable can be a current or non-current obligation, depending on its due date.
- 6. The time value of money is interest that is associated with the use of money over time. To the borrower, interest is an expense. To the lender, interest is revenue.

7. The calculation of simple interest is :

$$\text{Interest (I)} = \text{Principal (P)} \times \text{Interest Rate (R)} \times \text{Time (T)}$$

- a. Principal is the amount borrowed or loaned.
 - b. Interest Rate is the annual rate unless stated otherwise.
 - c. Time is the term of the loan in years or part of a year.
 - d. The formula for the computation of simple interest is the same for short-term and long-term notes payable.
 - e. Usually any accrued interest is a current liability (depending on the terms of the loan agreement).
8. Interest is an expense in the period the money is used (borrowed). In conformity with the matching principle, interest expense is recorded when it is incurred rather than when it is paid.
- B. Time Value of Money**
1. Creditors are willing to lend cash because they will earn interest in return for giving up the use of the money for a period.
 2. Interest is the rent that is charged for the use of money.

VI. LOS REPORT CONTINGENT LIABILITIES.

- A. Estimated Liabilities on the balance Sheet**
1. Some recorded liabilities are based on estimates because the exact amount will not be known until a future date.
 2. Whether a situation produces a contingent liability depends on two factors:
 - a. The liability must be probable, and
 - b. The liability must be reasonably estimated
 3. Before determining if a contingent liability should be recorded, an understanding of probability of occurrence is necessary.
 - a. Probable - the future event is likely to occur.
 - b. Reasonably possible - the chance of the occurrence of the future event is more than remote but less than probable.
 4. Remote - the chance of occurrence of the future event is slight.
 5. The conditions that can exist and how they should be handled are:

Condition	Probable	Reasonably Possible	Remote
Subject to estimation	Record as liability	Disclose in note	Disclosure not required
Not subject to estimate	Disclose in note	Disclose in note	Disclosure not required

6. Many businesses incur obligations related to the environment.
 - a. After natural resources are extracted, companies are often expected to restore the land to its former condition.
 - b. The cost of cleaning up pollution in the future is another environmental cost. These costs should be estimated and recorded as liabilities.

VII. LO6 EXPLAIN THE IMPORTANCE OF WORKING CAPITAL AND ITS IMPACT ON CASH FLOWS.

A. Working Capital Management

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

1. Working Capital is stated in dollars, not as a percent.
 2. Working Capital is important to both managers and financial analysts. It has a significant impact on the success of a company.
 3. Working Capital accounts must be actively managed to achieve a balance between costs and benefits.
 - a. Too little working capital is risky. A company might not be able to meet its current obligations to creditors.
 - b. Too much working capital might mean the company has tied up resources in unproductive assets.
- B. Effect on Statement of Cash Flows**
- Changes in working capital accounts have a direct impact on cash flows from operating activities.

VIII. LO7 REPORT LONG-TERM LIABILITIES.

A. Long-Term Liabilities

1. Noncurrent liabilities; i.e., all liabilities not properly classified as current liabilities.
2. Often incurred to finance the acquisition of operational (long-lived) assets.
 - a. This is a wise move if the rate of return from using the asset exceeds the rate of interest to finance the asset acquisition.
 - b. Long-term borrowing often allows an interest rate to be "locked-in" for a long period.
 - c. Therefore, the uncertainty regarding future fluctuations of interest rates is removed for long-term debt compared to short-term borrowing.
3. Long-term liabilities include long-term notes payable, bonds payable, and mortgages payable. The borrowing agreement specifies the amount borrowed, the interest rate imposed, and the repayment schedule.
4. The borrowing agreement may also require that the borrower pledge specific assets as security for the liability.
 - a. This type of pledge typically supports mortgage liabilities. Pledges of assets are common when purchasing real estate.
 - b. This type of borrowing is called secured debt.
 - c. Unsecured debt is when the creditor relies primarily on the integrity and general earning power of the borrower. Unsecured debt is typically more risky to the creditor than secured debt.
5. Long-term liabilities are presented on the balance sheet immediately following current liabilities.

B. Long-Term Notes Payable and Bonds

1. Companies may borrow long-term debt from financial organizations such as banks, insurance companies, or pension plans.
 - a. This debt is often called a note payable, which is a written promise to pay a stated sum at one or more specified future dates (maturity dates).
 - b. Borrowing from banks, insurance companies, pension plans, or other financial institutions is also called "private placement."
2. Publicly traded debt includes the issuance of bonds. After bonds are issued, they may be traded in established markets. Bonds are also evidenced by written payment promises. They are discussed in detail in Chapter 10.
3. Accounting for long-term notes payable and bonds is based on the same concepts for recording short-term debt.

C. Lease Liabilities

1. Companies may lease rather than purchase assets.
2. Lease contracts permit a company to pay in the future for an asset it will use in the future.
3. There are two classifications of leases:
 - a. Operating lease
 1. Generally does not create an immediate liability.
 2. Lease payment amounts are recorded as incurred.
 3. This type of lease is on a short term basis.
 - b. Capital lease
 1. Represents the purchase and financing of the asset “acquired” through a lease agreement.
 2. Generally recorded as an asset (for the purchase) and a liability (for the financing) if at least one of the following four criteria is met.
 - a. The lease term is 75% or more of the asset's expected economic life.
 - b. Ownership of the asset is transferred to the lessee at the end of the lease term.
 - c. The lease contract permits the lessee to purchase the asset at a price that is lower than its fair market value.
 - d. The present value of the lease payments is 90% or more of the fair market value of the asset when the lease is signed.
4. Most managers would prefer to record a lease as operating, because they would be required to report less long-term debt on the balance sheet.

IX. LO8 COMPUTE PRESENT VALUES.

A. Present Value Concepts

1. Present value (PV) focuses on the time value of money.
 - a. A dollar received today is worth more than a dollar received in the future (such as a year from now).
 - b. This is true because a dollar can be invested today and earns interest during that future period.
 - c. It is also true because the buying power of a dollar decreases in time due to inflation.
2. Managers may know the dollar amount of a cash flow that occurs in the future but they need to determine its value today. Also, managers may know the dollar amount of a cash flow that occurs today but they need to determine its value in the future.

B. Present Value of a Single Amount

1. The worth to you today of receiving a certain amount at some time in the future. It is a future amount discounted for compound interest.

$$\text{Present Value (PV) of a Single Amount} = \frac{1}{(1+i)^n}$$

2. This calculation is appropriate if you know what an investment will pay you in the future and you need to determine its value today (the amount to invest now). Three items must be known to find the PV of a single amount:
 - a. The amount to be received in the future.
 - b. The applicable discount rate (i) to be earned.
 - c. The number of periods (n) in which interest will be earned.
3. The amount of interest to be earned is subtracted from the future value.
 - a. This is referred to as compound discounting.
 - b. By using the PV table (Table A.1), the amount to be received in the future times the appropriate PV table factor will result in the PV amount.
4. Most analysts use present value tables, calculators, or Excel for computations rather than the PV formula.

C. Present Value of an Annuity

1. Annuity

- a.** A series of periodic cash receipts or cash payments that are characterized by
 - 1. An equal payment (in amount) each interest period.
 - 2. Annuities involve multiple cash flows over more than one period rather than a single amount.
 - 3. Interest periods are of equal length
 - 4. Interest rate remains constant over the annuity period.
- b.** Examples of common annuities are equipment payments, mortgage payments, and retirement benefits.
- c.** The equation for an annuity factor is:

$$\text{Present Value (PV) of an Annuity} = \frac{1 - \frac{1}{(1+i)^n}}{i}$$

X. LO9 APPLY PRESENT VALUE CONCEPTS TO LIABILITIES.

- There are many business transactions that require the use of FV and PV concept applications. Examples of these applications include the financing of operational asset purchases and investments in bond sinking funds.

XI. CHAPTER SUPPLEMENT A: INCOME TAXES AND RETIREMENT BENEFITS

1. Deferred Taxes

- a.** There are separate rules that govern the preparation of financial statements (GAAP) and tax returns (Internal Revenue Code).
 - 1. Deferred tax liabilities are obligations that exist due to timing (temporary) differences caused by reporting revenues and expenses according to GAAP on a company's income statement while reporting items on the tax return according to the laws specified in the Internal Revenue Code.
 - 2. Net income on the income statement often differs from taxable income on the tax return.
- b.** The matching principle requires that the tax expense on the income statement be based on the related income on that statement. Yet, the taxes currently payable are based on the amount reported on the tax return.
 - 1. The difference of the tax expense and the taxes currently payable is reported in an account called Deferred Taxes.
 - 2. This account can have either a debit balance (asset) or a credit balance (liability). Typically it is a liability.
- c.** Deferred tax exists due to the differences between GAAP and IRS requirements relating to when revenues and expenses are recognized.
 - 1. These temporary differences are timing differences that give rise to deferred income taxes.
 - 2. These differences will reverse (turn around) in the future.
 - 3. When a temporary difference reverses, the deferred tax amount is reduced. An example of an item, which commonly causes a timing difference, is depreciation since the tax law method does not generally relate to the economic use of an operational asset for a business.

2. Retirement Benefits
 - a. Often employers provide retirement programs for their employees. The matching principle requires that these expenses be recorded in the year the benefits of the employees' services are received by the company.
 - b. There are two types of retirement programs:
 1. A defined contribution program obligates an employer to make required annual payments to a fund.
 - a. These are recorded as pension expense.
 - b. The fund invests the money so that revenue can be generated.
 - c. The contributions along with the revenue earned (if any) in the fund provide payments to employees when they retire. The investing success (or lack of) determines the amounts available to retirees.
 2. A defined benefit program bases employees' retirement benefits on a percentage of the employee's compensation at retirement or a certain number of dollars for each year of employment or combination of the two.
 - a. The pension expense to be recorded each year by the employer is based on the change in the current cash value of the employee's retirement package.
 - b. Current value changes occur because:
 - i. An employee is closer to receiving benefits.
 - ii. Higher compensation or longer service increases retirement benefits.
 - iii. Life expectancies of employees change.
 - c. A liability is incurred for the results of these changes and their impact on the amount not yet funded.
 - c. Pension expense and associated liabilities may be significant amounts for many companies. Therefore, they are of particular interest to analysts who are forecasting the future cash flows of a company.
 - d. Employer-provided health care benefit programs that provide coverage to employees after retirement pose some complex accounting issues.
 1. The expense must be recorded during the period when employees provide services to the company.
 2. Estimates must be used to determine the amount of expense in the current period. In the health care arena, this is particularly challenging.

XII. CHAPTER SUPPLEMENT B: FEDERAL INCOME TAX CONCEPTS

1. Sole proprietorships and partnerships are not taxable entities per se. Corporations, being separate legal entities, are often subject to income taxes.
2. Corporations (regular) are liable for income taxes based on taxable income.
 - a. The tax liability of a corporation is determined by applying the applicable tax rates to the taxable income of the company.
 - b. Graduated rates are currently used for federal income tax purposes.
3. Differences often exist in net income for books and taxable income. Some common differences are:
 - a. Municipal bond interest is included in net income but is excluded from taxable income.
 - b. Rent collected in advance is excluded from net income but is included in taxable income.
 - c. Proceeds from life insurance policies (e.g. key executive insurance) are included in net income but is excluded from taxable income.
 - d. When corporations own less than 20% of another corporation's stock they may exclude 70% of the dividend received from taxable income. They can exclude 80% of the dividend if they own between 20 – 80% and they may exclude 100% of the dividend if they own over 80% of the stock in another company. Yet, the entire dividend is included in book income.
 - e. As mentioned, depreciation methods are also frequently different for tax and book purposes. For tax purposes, companies must use MACRS while there are several methods they can choose for book purposes.

4. Corporations spend considerable resources (time and money) to minimize the tax liability.
 - a. Tax planning strategies are important considerations for management.
 - b. The "least and latest rule" encourages companies to legally pay the smallest amounts. Tax payments are planned for the latest possible date.
 - c. Tax evasion involves illegal means to avoid paying taxes that are due. Tax planning involves legal means to postpone paying taxes.

XIII. CHAPTER SUPPLEMENT C: PRESENT VALUE CONCEPTS USING EXCEL

1. Most present value problems in business are solved with financial calculators or Excel spreadsheets.
2. The formula for the present value of a single amount is

$$= \text{Payment} / (1+i)^n$$

Where
Payment is the cash payment made at some point in the future.
i is the interest rate each period
n is the number of periods in the problem
3. The formula for the present value of an annuity is built into Excel.
 Click on the insert function button (f_x)
 In the dropdown box:
 - a. Enter the interest rate as a decimal in the *Rate* field.
 - b. Enter the number of periods in the *Nper* field.
 - c. Enter the payment as a negative amount in the *Payment* field.

XIV. CHAPTER SUPPLEMENT D: FUTURE VALUE CONCEPTS

1. Future value of a single amount

$$\text{Future Value (FV) of a Single Amount} = (1+i)^n$$
 - a. This calculation is appropriate if you plan to invest money today and you need to determine its value at a future date.
 - b. Three items must be known to find FV of a single amount:
 1. The amount to be invested today.
 2. The applicable interest rate (*i*) to be earned.
 3. The number of periods (*n*) in which interest will be earned.
 - c. The amount of interest earned (accrued) in one period is added to the invested amount. This sum earns interest for the next period and so forth. This is referred to as compound interest.
 - d. By using the FV tables, the amount to be invested (PV) times the appropriate FV table factor will result in the FV amount.

2. Future Value of an Annuity

$$\text{Future Value (FV) of an Annuity} = \frac{(1+i)^n - 1}{i}$$

- a. This includes compound interest on each payment from the date of payment to the end of the annuity term. Each payment accumulates less interest than the prior payments because the number of remaining periods decreases.
- b. Three items must be known to find it:
 1. The amount of each periodic payment.
 2. The applicable interest rate (*i*) to be earned.
 3. The number of periods (*n*) in which payments will be made.
- c. The amount of interest earned (accrued) in the first period is added to the first payment. When the second period's payment is made, it is added to the accumulated amount to earn (accrue) interest for that period and so on.
- d. By using the FV of an annuity tables, the amounts invested (PV) times the appropriate FV table factor will result in the future value amount.