

Libby Chapter 9
Reporting and Interpreting Liabilities

Introduction

This chapter discusses both short-term (current) and long-term (noncurrent) liabilities.

Short-Term Liabilities

- Accounts Payable (amounts owed to trade creditors for purchases on account)
- Accrued Liabilities (obligations incurred but not paid)
 - Income taxes
 - Payroll-related (e.g., accrued wages payable, accrued bonuses payable, FICA payable, unemployment taxes payable)
 - Other year-end accruals (e.g., utilities expense payable, interest payable)
- Short-Term Notes Payable (due within one year)
- Current Portion of Long-Term Debt (portion of long-term debt due within one year)
- Deferred (Unearned) Revenues (cash received before revenue earned)
- Contingent Liabilities
 - Warranties

Long-Term Liabilities

- Long-term debt: Bonds payable, notes payable
- Leases
- Contingent Liabilities
 - Warranty liabilities

Present Value

The chapter discusses present value techniques. The *most common use for present value techniques/computations in financial accounting* are:

- ***Calculate the present value of a known stream of cash flows at a stipulated discount rate.*** This is a common use in accounting and finance.
- ***Solve for the market interest rate*** when the market value of a financial instrument is known and the cash flow parameters are known.
- ***Use the effective interest rate to calculate interest expense for the period (Chapter 10 and Appendix E).***

Although the text includes *present value tables* for students to use in computing present values, students are expected to use Excel or a financial calculator to make present value computations.

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Present Value Parameters

N. *N* refers to the number of compounding periods (interest payment periods).

Pmt. *Pmt* is the amount of periodic interest payments.

I. *I* = market rate of interest.

FV. *FV* equals the lump sum made at the end of the note that is separate from the final periodic payment.

PV. *PV* represents the present value of the future principal and interest cash flows.

If you use Excel, use the PV function and input these parameters. **If you know any four parameters, you can compute the fifth.**

Chapter 9 Supplement A shows how to use Excel to compute present values.

In Accounting, most of our problems will be to solve for *I* (the market interest rate) or *PV* (the present value).

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Example. Assume that the Madurai-Kumar Co. borrowed \$50,000,000 from the First National Bank. The principal is due in 7 years, and annual interest rate is 8% (due at the end of each year) The current market rate for this type of loan is 8%.

- Note: for most notes payable, this is the normal situation. The borrower and bank use the current market rate for the contractual interest rate.
- In Chapter 10, we discuss situations when the two rates are not the same.

Because the % interest rate reflects the market interest rate, the present value is computed as follows:

N=7

I (market rate of interest) = 8

Payment = 50,000,000 x 8% contractual rate = 4,000,000

Future Value = 50,000,000

Present Value ==????? (solve for) = 50,000,000

The Excel syntax is: =PV(7,.08,4000000,50000000), which returns -50000000 as the present value.

Note that the present value equals the face value because the market and stated interest rates are the same.

How to solve for present value parameters is a critical takeaway from this course. We will normally solve for either I or PV.

CURRENT LIABILITIES

Current liabilities are obligations due within one year.

Current liabilities are used in liquidity measures, frequently paired with current assets.

Working capital = current assets – current liabilities

Current ratio = current assets ÷ current liabilities.

These are two important terms that all MBAs should know.

Accounts Payable

Accounts payable is the accepted name for trade accounts payable.

- In rare instances, a company might finance the purchase of inventory with a *trade note payable* rather than accounts payable.

Payroll Liabilities

Anyone who has earned a paycheck knows that a large number of deductions are made by the employer. The employer has an obligation to remit the amounts collected to the appropriate party. We do not cover the accounting for these items other than recognizing them.

Notes Payable

Short-term notes payable are frequently used to borrow for short amounts of time (e.g. 5 months). Unless borrowed specifically to finance the acquisition of inventory (i.e., trade notes payable), notes payable are considered to be nontrade. Notes payable can also be borrowed for long periods of time (e.g., 5 years).

In the Statement of Cash Flows,

- cash flows related to *trade notes payable* are *operating activities*
- cash flows related to *nontrade notes payable* are *financing activities*

Computation of Interest Paid/Payable

The calculation of simple interest is:

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

Interest expense. Interest expense and interest payable are recognized as incurred.

Current Portion of Long-Term Debt

If all or a portion of long-term debt becomes due within one year, it is *reclassified* from long-term to current (short-term) liabilities and is reported as a current liability.

Note, the activity related to the current portion of long-term debt is classified on the statement of cash flows as a financing activity.

Deferred (Unearned) Revenues

If cash is received before it is earned, deferred (unearned) revenue is recorded.

- Deferred revenue is shown as a liability, usually with current liabilities.
- As revenue is earned, deferred revenue is decreased and revenue is recognized.

Contingent Liabilities

Contingent liabilities are potential liabilities related to past events. Contingent liabilities are contingent on some future event occurring. Accountants classify contingent liabilities in one of three ways:

- Contingent liabilities **recognized in financial statements**
 - **Probable** and **Estimable**
- Contingent liabilities **not recognized** in financial statements but **reported in footnotes**
 - **Probable** but **not Estimable**
 - **Reasonably Possible** and either **estimable** or **not estimable**
- Contingent liabilities **neither recognized in financial statements nor reported in footnotes**
 - **Remote** and either **estimable** or **not estimable**

Most companies presenting GAAP based financial statements have a footnote entitled Commitments and Contingencies where contingent liabilities are discussed.

Warranty Liabilities (not discussed in depth in text)

One **common contingent liability** is a **warranty liability**.

- Warranty liabilities are not discussed in the text, but we are including because they are a common liability and managers should know how to account for them.
- *The liability is contingent because it depends upon a future event, filing of a warranty claim.*
- However, it is virtually certain that warranty claims will be filed, and most companies that sell products under warranty are able to estimate the amount of claims.

It is important under the matching principle that the warranty expense be matched with the sales in the period of the sale.

- The primary way that warranties are estimated is as a “percent of sales,” an income statement approach.
- The percent is based upon past and current experience.

Warranty Liability	
	<i>Beginning balance</i>
+	<i>Warranty expense</i>
-	<i>Warranty claims paid</i>
	<i>Ending balance</i>

In T Account Form

Warranty Liability	
	Beginning balance
Warranty claims paid	Warranty expense
	Ending Balance

Example. For example, assume that in the current year, the Nord Co. had sales of \$30,000,000 subject to 3 year warranty. Further, based upon past experience, Nord estimates that warranty claims will be 5% of sales. The effect on the annual financial statements is as follows.

$$30,000,000 \times 5\% = 1,500,000$$

Assets	=	Liabilities	+	Equity
		Warranty liability ↑ 1,500,000		Warranty expense ↓ 1,500,000*

*Warranty expense increases, which decreases net income and equity

Warranty Liability

	Beginning balance
	Warranty expense = 1,500,000
	Ending Balance

Warranty expense	1,500,000	
Warranty liability		1,500,000

Payment of Warranty Claims. Note that *warranty claims are paid* warranty expense is not affected.

Example. \$40,000 in claims. To keep the example simple, we assume that the warranty claim is paid in cash.

Assets	=	Liabilities	+	Equity
↓ 40,000 Cash		↓ 40,000Warranty liability		

The T account effects of the two transactions are as follows:

Warranty Liability	
Warranty claims paid = 40,000	Beginning balance
	Warranty expense = 1,500,000
	Ending Balance

Warranty liability	40,000	
Cash		40,000

Note: no expense is recognized when warranty claims are paid

For the *percent of sales approach* to be correct over time, the company needs to continually monitor the warranty claim experience and adjust the percent used to compute warranty expense.

- Over time, the warranty liability may not represent the current amount of estimated future warranty claims.
- Accordingly, although the percent of sales method is used, companies also routinely look at the magnitude of the year-end warranty liability as to the reasonableness of that amount.

Example 2. The Soni Co. had a year-end warranty liability of \$1,200,000. At year- end, the claims department assessed the current information related to warranty activities and estimated that the warranty claims should be \$1,365,000. The following is the effect on the financial statements.

$$1,200,000 - 1,365,000 = 165,000$$

Assets	=	Liabilities	+	Equity
		Warranty liability ↑ 165,000		Warranty expense* ↓ 165,000

*The warranty liability increases and warranty expense increases, which decreases net income and equity.

In T Account Form

Warranty Liability	
	Beginning balance, before adjustment = 1,200,000
	Warranty expense = 165,000
	Ending Balance, after adjustment = 1,365,000

Warranty expense	165,000	
Warranty liability		165,000

UNEARNED REVENUES (AND THE RELATED PREPAID EXPENSES)

Generally, the text and notes try to reflect the best way to record an initial transaction.

For some, smaller companies that have few transactions or do not need interim financial statements, the accountant may record the revenue or expense originally and then at year-end use adjusting journal entries to adjust the balance sheet to it being correct; i.e., sometimes the accountant does not initially record the transaction in the best way. The instructor notes provide examples of alternative ways of recording initial transactions.

Example. let's assume the rent for the Selking Co. is \$1,000 per month payable to the Moss Co., and on December 1, Selking prepaid rent for 4 months (November, December, January, February).

UNEARNED REVENUES (Moss)

The best way to record this transaction is as deferred (unearned) income (or deferred revenue) on November 1

Assets	=	Liabilities	+	Equity
Cash ↑ 4,000		Unearned rent income* ↑ 4,000		

*Alternatively, *deferred rent revenue* or *unearned rent revenue*

December 1		
Cash	4,000	
Unearned rent income (1) (2)		4,000

(1) Reported with the current liabilities

(2) Also, accounts could be called unearned rent revenue, deferred rent revenue, and deferred rent income.

December 31		
Unearned rent income	1,000	
Rent Income (3)		1,000

(3) Also, accounts could be called rent revenue.

T accounts help us understand the effects at year-end.

Unearned Rent Income			
12.31		12.1	4,000
1,000			
		12.31	3,000
Rent Income			
		12.31	1,000
		12.31	1,000

At year end, the December 31 financial statements reflect:

Unearned rent income: \$3,000

Rent income \$1,000

PREPAID RENT (Selking)

Although Chapter 9 deals with liabilities, we cover the prepaid expense side of the transaction.

Assets	=	Liabilities	+	Equity
↓ 4,000 Cash ↑ 4,000 Prepaid Rent				

December 1		
Prepaid Rent (1) (2)	4,000	
Cash		4,000

- (1) Reported with the current assets
 (2) Alternatively, *prepaid rent expense*

December 31		
Rent Expense	1,000	
Prepaid Rent		1,000

T accounts help us understand the effects at year-end.

Prepaid Rent			
12.1	4,000	12.31	1,000
12.31	3,000		
Rent Expense			
12.31	1,000		

At year end, the December 31 financial statements reflect:

Prepaid rent:	\$3,000
Rent expense	\$1,000

Long-Term Liabilities

Three primary long-term liabilities are notes payable, bonds payable, and leases payable. Each of these represents a monetary liability (obligation), and present values are used extensively in computing and accounting for them.

Notes Payable

Long-term notes payable are used to finance a business. In a basic note payable, a company borrows a set amount at a stipulated interest rate (the interest rate can be either fixed or variable). The amount borrowed equals the repayment obligation, and companies make periodic interest and principal payments on the debt.

Example. Assume that the Shirvadekar Co. borrowed \$40,000,000 on January 1, 2015 under the following terms:

- four year note matures on December 31, 2018;
- principal is payable in four annual installments of \$10,000,000 on December 31 (first payment due December 31, 2015), for a total of \$40,000,000 in principal payments.
- interest is paid annually on December 31;
- the annual interest rate on the debt is 8% per annum

Assume that Shirvadekar only makes annual adjusting journal entries to accrue interest expense (most companies would do this monthly, and some daily).

January 1, 2015

Assets	=	Liabilities	+	Equity
Cash ↑ 40,000,000		Notes payable ↑ 40,000,000		

January 1, 2015		
Cash	40,000,000	
Notes payable		40,000,000

December 31, 2015		
Interest expense	3,200,000	
Notes payable	10,000,000	
Cash		13,200,000

$$40,000,000 \times 8\% = 3,200,000$$

Note: 2016 Interest = 30,000,000 x 8% = 2,400,000

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Monthly AJE. If the company made monthly AJEs for the notes, the monthly AJE would be

January 31, 2015		
Interest expense	266,667	
Interest payable		266,667

$40,000,000 \times 8\% = 3,200,000 / 12 = 266,667$

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December 31, 2015

Current Liabilities	
Current maturity of long-term notes payable (1)	\$10,000,000
Interest payable	0
Noncurrent Liabilities	
Notes payable	\$20,000,000
(1) The amount due on December 31, 2016	

Example 2 (Change the facts). If principal and interest were due January 1, 2016 rather than December 31, 2015, then the following December 31 year-end adjusting journal entry would be made:

December 31, 2015		
Interest expense	3,200,000	
Interest payable		3,200,000

On the December 31, 2015 balance sheet, the following selected amounts would be shown

Current Liabilities	
Current maturity of long-term notes payable (1)	\$10,000,000
Interest payable	3,200,000
Noncurrent Liabilities	
Notes payable	\$30,000,000
(1) The amount due on January 1, 2016	

The January 1, 2016 entry for payment is as follows:

January 1, 2016		
Interest payable	3,200,000	
Notes payable	10,000,000	
Cash		13,200,000

Computation of Interest Paid/Payable

Bonds Payable

In Chapter 9, we cover the basics of bonds. We cover more completed bonds payable Chapter 10, which is an in-depth discussion of bonds. In Appendix E, we cover bond investments.

Accounting for bonds payable and notes payable are similar, with one major difference.

- Frequently, the interest rate attached to a bond is not the same rate as the market rate on the date of issuance.
- This occurs because a company frequently has to announce an interest rate before its issuance date so that demand for the new offering can be measured, and market interest rates fluctuate daily.
- Accordingly, the bonds are issued at a premium or discount to face value.
 - This situation is not discussed in Chapter 9.
 - Chapter 10 deals with bond liabilities and more complex examples, including premium/discount.

See <http://bonds.yahoo.com/glossary4.html> for more information.

Lease Obligations & Accrued Retirement Obligations

These are mentioned in the text, but not covered in this course.

RATIO ANALYSIS

Two ratios discussed in Chapter 9 are the **current ratio** and **accounts payable turnover (or accounts payable turnover ratio)**.

The **current ratio** is computed as:

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

A related ratio, not discussed in the text is the *quick ratio*.

$$\text{Quick Ratio} = \frac{\text{Cash} + \text{Marketable Securities} + \text{Net Receivables}}{\text{Current Liabilities}}$$

The quick ratio will be smaller than the current ratio.

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

ELI LILLY AND COMPANY AND SUBSIDIARIES

Accounts payable turnover reports the number of times, on average, a company pays its trade creditors.

The average number of days it takes to pay trade creditors = 365 / accounts payable turnover.

STATEMENT OF CASH FLOWS

ELI LILLY AND COMPANY AND SUBSIDIARIES

The statement of cash flows is affected by several items in Chapter 9.

Current (Operational) Liabilities

- Accounts payable
- Accrued operational liabilities (sometimes referenced as accrued expenses payable)
- Interest payable. Note that interest paid is treated as an operational cash flow.

Short-Term Liabilities for Financing Purposes

- Notes payable

Long-Term Liabilities

- Issuance of debt
- Repurchase of debt.

OPERATING ACTIVITIES

ELI LILLY AND COMPANY AND SUBSIDIARIES

Net Income

Adjustments to reconcile from net income to cash flow from operations

Increase (decrease in operational current liabilities)

Losses (Gains) on repurchase of debt

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Net Cash Flow from Operating Activities

FINANCING ACTIVITIES

Proceeds from issuance of debt

(Payment of debt)

Here is a mental rule for adjustments to operational current assets and operational current liabilities. Memorize this heuristic.

- If the increase or decrease in the operational current asset or current liability account was a **debit** during the year (e.g., increase in current asset or decrease in current liability), then think of the needed offset as a **credit** to (a reduction in) cash.
- If the increase or decrease in the operational current asset or current liability account was a **credit** during the year (e.g., decrease in current asset or increase in current liability), then think of the needed offset as a **debit** to (an addition to) cash.