

## Chapter 9: Reporting and Interpreting Liabilities

Liabilities are measured and reported at its current cash equivalent, i.e. the present value of liabilities. It is the amount of cash that the liability is equivalent to at time of borrowing. Interest is accounted separately from the principle.

**Current Liabilities:** short-term obligations that will be paid within the current operating cycle or a year, whichever is longer. Noncurrent liabilities (long-term liabilities) include all other liabilities.

### Examples of Current Liabilities

1. Accounts Payable
2. Short-term Notes payable (1 year or shorter maturity period)
3. Current Portion of Long-term debt
4. Salary Payable (Accrued Vacation Liability)
5. Income taxes payable
6. Payroll taxes payable (employee income tax withheld, FICA taxed employee share)
7. Deferred Revenue

(Note: Salary payable and related compensation payable, income taxes payable and payroll taxes payable are referred to as accrued liabilities in the textbook.)

### Long-term Liability

1. Private debt: Bank loans, Notes payable
2. Public debt: Bond payable. The price of bonds is determined by its present value.
3. Lease (more in intermediate accounting)

### Estimated Liability

1. Contingent liability

A contingent liability is reported in the B/S only when the chance of future sacrifice (in the form of losses, expenses, or obligations) is “probable” and the amount can be estimated. If some future sacrifice is “reasonable possible” or it is “probable” but the amount of sacrifice cannot be estimated, then it is not recorded in the B/S. But the event is required to be disclosed in the footnotes.

2. Warranty liability

Warranty is a type of contingent liability that are recorded on the B/S. (why?)  
Warranty expense and payable are estimated recorded at the time of sales of warranty.  
(Matching principle)

Example, in December 2005, BestBuy sold XBOX 360 for \$100,000. Along with the sale, a two-year warranty is included. The warranty expense is estimated to be 2% of the sale. In March 2006, a repair within the warranty costing \$160. Provide appropriate journal entries.

**So in December, 2005:**

Dr. Warranty Expense	\$2,000
Cr. Warranty Payable	\$2,000

**In March, 2006:**

Dr. Warranty Payable	\$160
Cr. Cash	\$160

**Analyzing Liquidity**

Liquidity measures a firm's ability to meet its short-term debts and obligations.

Working Capital = Current Assets – Current Liabilities

Current Ratio = Current Assets / Current Liabilities

In-class exercises

Based on following information, calculate the current ratio and working capital.

Accounts Payable	\$15,000
Accounts Receivable	18,000
Accumulated Depreciation-Building	26,200
Advertising Expense	12,800
Building	100,000
Capital Stock	60,000
Cash	15,000
Cost of Goods Sold	56,500
Depreciation Expense	2,000
Insurance Expense	3,800
Interest Payable	1,900
Inventory of Merchandise	25,000
Land	30,000
Prepaid Insurance	4,600
Rent Revenue	2,500
Retained Earnings	58,000
Salaries Expense	48,000
Salaries Payable	4,600
Sales	150,000
Supplies	1,200
Supplies Expense	2,000
Unearned Rent Revenue	700

Sharp Company borrowed \$500,000 on a 6% one-year, interest-bearing note dated November 1, 2009. The annual accounting period ends on December 31. Give journal entries on the following dates: November 1, 2009, December 31, 2009, and October 31, 2010.

### Time Value of Money

One dollar today doesn't equal to a dollar tomorrow. The opportunity of earning interest (returns) is the time value of money.

**Compound interest:** compound interest is used to calculate time value of money.

Suppose: 5-year notes of \$100,000, annual interest is 12%, interest is paid at the maturity date.. What is the total interest payment?

Simple interest:  $\$100,000 \times 12\% \times 5 = \$60,000$

Compound interest:  $\$100,000 \times (1+12\%)^5 - 100,000 =$

**Present Value:** how much does it worth today for some money to be received in the future?

Cash to be received in the future is discounted for compound interest rate.

**Future Value:** how much does it worth in the future for some money at present?

**Annuity:** a series of equal amount cash flows over equally spaced interval of time. There are two types of annuities: ordinary annuity (annuity in arrears) and annuity due. In this course, we only work with ordinary annuity.

When working on problems about the time value of money,

Step 1: Make sure whether it is a single amount or an annuity.

Step 2: Determine whether you want the PRESENT value or the FUTURE value.

Step 3: Find the correct table.

Step 4: Look for the correct factors – number of period (n) and interest rate (r).

**Note: n and r are determined by how often interest is compound.**

Suppose interest rate is 12%. To calculate the present value of a cash payment of \$20,000, 2 years from today:

If interest is accrued annually, then  $n=2$  and  $r=12\%$

If interest is accrued semi-annually, then  $n=4$  and  $r=6\%$

In-class exercises

3. Melissa is considering several possible investment alternatives.

Option A: Melissa could receive \$10,000 today.

Option B: Melissa could receive \$3,000 at the end of each year for four years.

Option C: Melissa could receive \$15,000 five years from now.

Which option results in the greatest financial benefit to Melissa assuming Melissa can earn 8% on any of the investment funds?

4. If your goal is to have \$50,000 cash in your saving account 5 years from today, 1) how much money do you need to put in today to a saving account with 6% compounding interest rate? 2) Instead of depositing a single amount, you decide to put away some fixed amount at the end of every year for 5 years. How much should you put in every year? Assume interest is compounded annually.