**Notes to accompany chap 10 (acct 210)**

**Chapter 10: Liabilities.**

Creditors and investors evaluate carefully the liabilities appearing in financial reports. A thorough understanding of short term versus long term liabilities is important for managers in choosing how to finance their business. In addition the impact of debt on various financial ratios is illustrated .

*Learning objective number 1 is to define liabilities and distinguish between current and long-term liabilities*

**T10-2 Liabilities** are debts and obligations owed from past transactions or events that require settlement at a future date.(inventory invoices ,office supplies invoices, shipping charges, utility and phone bills). Liabilities can be separated into two categories: Current and Non-current.

**Current liabilities** are due to be paid within one year or the normal operating cycle of the business, whichever is longer. For most businesses, one year is longer than the operating cycle.

**Noncurrent liabilities** are due to be paid sometime after one year.

**NB:** the maturity dates of key liabilities may be a critical factor in the solvency of s business.

***T10-3*** *A company can finance its operations from two sources.* One is **debt.** Debt is a borrowing from a creditor, such as a bank. It has a definite due date (maturity date) and in most cases bears an interest rate. The providers of capital are **creditors ,**have financial claims against the business but usually do not have the right to control business operations. In addition a loan can be secured by a specific asset or security pledged aside by the borrower(**collateral)** Assets that have been pledged as security for loans should be identified in notes accompanying the borrower’s F/S.

Another way a company can finance its operations is through **equity.** This requires companies to sell additional stock in the company to new or existing shareholders.

**T10-4 A provision** has two basic characteristics: (1) the liability is known to exist, and (2) the precise dollar amount cannot be determined until a later date.

An example of a provision is the *warranty* associated with a new car provided by the manufacturer. The warranty usually extends for a number of years. As each car is sold, the automaker incurs a liability to perform any work that may be required under the warranty. The dollar amount of the liability, however, can only be estimated at the date of sale.

**10-5 Current liabilities** are defined as those liabilities that must be paid within one year or within the normal operating cycle, whichever is longer. Current assets are debts that will be paid from current assets (or through the rendering of services) **Working capital** is defined as current assets minus current liabilities. Current ratio(current assets divided by current liabilities are valuable indicators of a company’s ability to pay its debts in the future. EX; A/P, Short –term notes, current portion of long term debt , accrued liabilities and unearned revenue.

**Accrued liabilities** arise from the recognition of expenses for which payment will be made in a future period🡪 the matching principle governs the timing of their recognition. (interest payable, taxes payables)

**Accounts Payable** are short-term obligations to suppliers for purchases of merchandise (trade payable) and other goods and services that are used in the normal operations of a business.

*Learning objective number 2 is to account for notes payable and interest expense.*

**10-6** Many **Notes Payable** require payments on a regular basis during the life of the note. For example, many home mortgages are for fifteen or thirty years. But homeowners do not wait until the end of the fifteen or thirty years to make a payment. They usually make monthly payments during the loan term.

Remember that any debt due within one year is classified as current. *The portion of a note payable that is due within one year would be classified as a current liability.* The remainder of the note that is due outside of one year is classified as noncurrent.

**T10-7 A note** is a written promise to pay a specific amount at a specific future date.

A note includes the following necessary information about the agreement. **The payee** on the note is the recipient of the cash at maturity. In this example, the payee is Security National Bank. The **maker** on the note is the debtor who owes the money. In this example, the maker is Porter Company. Notes also include information about the **principal, interest rate, and due date.** This note is for $100,000, has an interest rate of 12%, and is due six months from the date of the note.(May 1st)

*Let’s look at the entry Porter Company will make on November 1st.*

On November 1st , Porter debits Cash and credits Note Payable for $100,000. At the date that money is borrowed , the borrower has a liability only for the principal amount of the loan.

Most notes have an interest rate associated with them. For borrowers, this is the *interest expense* they will incur and for lenders, this is the *interest revenue* they will receive.

**Interest i**s calculated as Principal times the Interest Rate times the Time the note was outstanding. *Only interest accrued as of balance sheet date appears as a liability in the borrower’s balance sheet.( interest to be paid in the future is disclosed in the notes)*

On December 31st, Porter Company needs an adjusting entry to record the interest expense. Let’s look at that entry.

On December 31st, Porter debits Interest Expense and credits Interest Payable for $2000.

The two thousand dollars in interest is calculated as the original note amount of hundred thousand dollars times the interest rate of twelve percent times the outstanding time of the note. At December 31st, the outstanding time for this note is two months.

On May 1st, Porter Company will pay back the principal amount of the note plus the interest for six months. Let’s look at that entry.

Porter eliminates the note payable for $100,000 and the interest payable for $2000. The company must recognize the interest expense for the four month January-April of $4000. Cash will be credited for the principal plus interest of $106,000.

**T10-8 Accrued liabilities** arise from the recognition of expenses for which payment will be made in the future. Accrued liabilities are often referred to as accrued expenses. Examples of accrued liabilities include interest payable and taxes payable. As accrued liabilities stem from the recording of expenses, the matching principle governs the timing of their recognition. All companies incur accrued liabilities. In most cases, however, these liabilities are paid at frequent intervals.

**T10-10** A liability for **unearned revenue** arise when a customer pays in advance. Most of the time people in debt owe money, but sometimes a business can be in debt for services. For example, assume a new client asks his accounting firm to perform next year’s audit. After checking, the firm sees that it has just enough time to add one client to the schedule next year. The firm tells the client it would be glad to perform the audit but needs $100,000 to hold their spot on the schedule. The client agrees and gives the accounting firm $100,000.

When it is time to do the audit, how happy would the client be if the accounting firm just gave them back the $100,000 instead of performing the audit? Not too happy. They do not want money; they want auditing services. The accounting firm is not in debt for money but for auditing services valued at $100,000.

**When the client paid in advance for the audit services, the firm debited Cash and credited a liability called Unearned Revenue As the services are rendered ,the company would debit the liability unearned revenue and credit service revenue account..**

**T10-11** When a company has a relatively small need for cash, the need can usually be met by a single lender, such as a bank.

**T10-12** However, when a company needs large amounts of cash, one creditor may not be willing to take on all the risk of repayment. In this case, many companies issue bonds to lots of different people and entities to spread out the **risk. Long term obligations** usually arise from major expenditures such as acquisitions of plant assets ,purchase of another company or *refinancing* an existing long term obligation that is about to mature.

**T10-13** One special type of noncurrent liability is an obligation that will mature in the current period but that is expected to be refinanced on a long-term basis. If management has both the intent and ability to refinance soon-to-mature obligations on a noncurrent basis, these obligations are classified as noncurrent liabilities.

**T10-14 Installment notes (or debt service) call for a series of payments.** Each payment includes some payment on the principal and some payment for interest. If these installments continue until the debt is completely repaid, the loan is said to *be fully amortizing .Some* installment notes contain a due date at which the remaining unpaid balance is to be repaid in single *balloon payment*. Most car loans and home loans are set up on installment payments. Often, the required payments are the same each month

**NB: For each payment made, as the amount owed is reduced by each payment, the amount of the principal payment increases and the amount of the interest payment decreases.**

**T10-15** When allocating a payment between interest and principal, *follow these four steps.*

*First,* identify the unpaid principal balance.

*Second,* calculate the interest expense.

*Third,* determine the reduction in the principal balance.

*Fourth,* compute the new unpaid principal balance.

*Learning objective number 4 is to prepare an* ***amortization table*** *allocating payments between interest and principal.*

Review the information for King’s Inn. On 1 January, Year 1, King’s Inn purchased furnishings at a cost of $75,815.7. The loan was a five-year loan and had an interest rate of 10%. The annual payment is $20,000. Let’s prepare an **amortization table** for King’s Inn.

**T10-16 Notice the annual payment is always $20,000.** *Also notice that for each payment the interest portion decreases and the principal portion increases.* Let’s review how to get the interest expense and the principal payment amounts for the first installment payment on the note.

Interest is calculated by taking the unpaid balance at the beginning of the period of $75,815.7 and multiplying it by the 10% interest rate. **NB: the interest expense is decreasing each month , because the unpaid balance is continually decreasing.**

The principal is calculated by taking the annual payment and subtracting the interest.

The new unpaid balance is the previous balance less the amount of the principal reduction. Make sure you can calculate the other amounts on the table.

**T10-17** The first annual payment will be made on 1 January, Year 2. At 31 December, Year 1, King’s Inn must accrue interest for the year. We can use the amortization table to find the interest expense for Year 1. The proper journal entry is to debit Interest Expense and credit Interest Payable for $7,581.6. A similar process of accrual and payment will be made in Years 2 and beyond.

*Let’s look at the entry for the first payment.*

The entry includes a debit to Interest Expense and Note Payable and a credit to Cash.

**T10-18** On 1 January, Year 2, King’s Inn will make its first annual payment on the installment note. The accountant for King’s Inn will debit Interest Payable for $7,581.6 to clear out that account. In addition, the accountant will debit Note Payable for $12,418.4, the amount of the principal reduction, and credit Cash for $20,000, the payment amount.

*Learning objective is to evaluate the safety of creditor’s claims.*

All stakeholders are concerned with the liquidity of their firm since an illiquid businesses may be forced into bankruptcy.

**Short term creditors** are interested in the company’s immediate liquidity. **Long term creditors** are interested in the company’s ability to meet its interest obligations over a period of years as well as its ability to repay or refinance large obligations as they come due.

**The Interest Coverage ratio** indicates a margin of protection for creditors. It is calculated as Operating Income divided by Interest Expense. EBIT /INT It shows how many times the company earns its annual interest obligations.

**NB**: from a creditor’s point of view ,the higher this ratio, the better.

See if you can calculate Devon’s interest coverage ratio.

Devon has an interest coverage ratio of 10. *This means that Devon was able to earn its annual interest expense payment 10 time during the year.* This is a very comforting measure for creditors.

Many businesses aggressively use long-term debt ,such as mortgages and bonds payable to finance growth and expansion, does this benefit the stockholders?

Many companies use **financial leverage** to increase investment earnings. By borrowing at a low rate and investing at a higher rate, the company will have a net increase in investment profits. Ie **return on equity will be magnified or leveraged.**

However if the rate of return earned on the borrowed money falls below the rate of interest being paid ,the use of borrowed money reduces net income and ROE.

NB: the more leverage a company applies , the greater the effects on net income and ROE. **The debt ratio is a basic measure of the amount of leverage applied.**

**Review Exhibit 10-8 on page 460.**