CHAPTER 14

Long-Term Liabilities
LECTURE OUTLINE

This chapter can be covered in three class sessions. Students are generally familiar with the accounting for bonds payable from elementary accounting. Some students may be unfamiliar with the effective interest method of amortization of bond discount and premium. This chapter provides an opportunity to apply present value concepts covered in chapter 6. The appendix, Accounting for Troubled Debt, provides a detailed discussion of SFAS 114.

A. Nature of Long-Term Liabilities.

1. Consists of present obligations not payable within the operating cycle of the business, or a year whichever is longer.

2. Long-term creditors have no vote in management affairs and only receive a stated rate of interest regardless of the level of earnings.

3. Covenants or restrictions, for the protection of both lenders and borrowers, are stated in the bond indenture or note agreement.

B. Bonds Payable. Arises from a contract known as a bond indenture. Represents a promise to pay the principle at maturity and periodic interest based on the stated interest rate and the face value of the bond.

1. Discuss the different types of bonds such as term bonds, serial bonds, secured and unsecured bonds, convertible bonds, commodity-backed bonds, deep discount bonds, registered, and coupon bonds.

2. Valuation. The price of a bond is determined by the interaction between the bond’s stated interest rate and its market rate.

   a. A bond’s price is equal to the sum of the present value of the principle and the present value of the periodic interest.
b. If the stated rate = the market rate, the bond will sell at par.

c. If the stated rate < the market rate, the bond will sell at a discount.

d. If the stated rate > the market rate, the bond will sell at a premium.

Illustration 14-1 can be used to demonstrate how bond prices are affected by the stated rate of interest and the market rate of interest. A numerical example is given that calculates the selling price of bonds issued at a premium, at par, and at a discount.

3. Accounting for the issuance of bonds.
   a. The face value of the bond is always reflected in the bond payable account.

   b. When a bond sells at a discount, the difference between the sales price and the face value is debited to Discount on Bonds Payable.

      (1) This is a contra-account to Bonds Payable.

   c. When a bond sells at a premium, the difference between the sales price and the face value is credited to Premium on Bonds Payable.

      (1) This is an adjunct account to Bonds Payable.

   d. Bonds sold between interest dates.

      (1) The price includes the interest accrued since the last interest payment.

      (2) The accrued interest is credited to Bond Interest Expense.

4. Amortization of bond discounts and premiums.
   a. The amortization period for premiums or discounts is the period of time that the bonds are expected to be outstanding.
b. Bond interest expense is increased by amortization of a discount and decreased by amortization of a premium.

c. The **effective interest method** is the preferred procedure used to calculate periodic interest expense. The carrying amount of the bonds at the start of the period is multiplied by the effective interest rate to determine the interest expense.

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**Illustration 14-2** compares the calculation of bond discount or premium amortization under the straight-line and effective interest methods.

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**Effective Interest Method.** In teaching this part of the chapter the following relationships should be emphasized.


2. Interest Payable = Stated Interest Rate $\times$ Face Value of Bonds.

3. Interest Expense = Effective Interest Rate $\times$ Carrying Value of Bonds.

4. If a premium exists: 
   \[
   \left\{ \begin{array}{l}
   \text{Interest Expense} \quad \text{XX} \\
   \text{Premium on Bonds Payable} \quad \text{XX} \\
   \text{Interest Payable} \quad \text{XX}
   \end{array} \right. 
   \]

5. If a discount exists: 
   \[
   \left\{ \begin{array}{l}
   \text{Interest Expense} \quad \text{XX} \\
   \text{Discount on Bonds Payable} \quad \text{XX} \\
   \text{Interest Payable} \quad \text{XX}
   \end{array} \right. 
   \]

d. **Straight-line method** of amortization may be used if the results are not materially different from those produced by the effective interest method.
5. **Issuance expenses** are debited to a deferred charge account such as Bond Issue Costs and amortized over the life of the issue, usually using a straight-line method.

6. **Treasury bonds** are issued bonds that have been reacquired.
   a. Shown on balance sheet, at par, as a deduction from bonds payable.

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**TEACHING TIP**

*Illustration 14-3* provides a review problem of accounting for bonds. The numerical example requires calculating bond discount, recording the issuance of bonds, preparing an effective interest method amortization schedule, and preparing journal entries to record interest expense, amortization of bond discount and bond issuance costs.

C. Extinguishment of Debt.

1. The difference between the net carrying amount and the re-acquisition price is a gain or loss.
   a. Reacquisition price = price + call premium + reacquisition expenses
   b. Carrying amount = face value ± unamortized premium/discount + unamoritized issuance costs
   c. Gain on Redemption of Bonds: when carrying amount > Reacquisition price
   d. Loss on Redemption of Bonds: when carrying amount < Redemption price

2. This gain or loss is reflected in income in the period of redemption as an extraordinary item.
   (1) gains and losses from certain sinking-fund purchases are not required to be classified as extraordinary.
Illustration 14-4 is a continuation of the numerical example of Illustration 14-3. Debt is extinguished two years after issuance and an extraordinary loss is recognized.

D. Long-Term Notes Payable.

1. Application of APB Opinion No. 21 insures proper accounting for transactions where the form does not reflect the economic substance of the arrangement, because of failure to provide for a realistic interest rate on amounts payable or receivable.

2. Notes not issued at face value

a. **Zero Interest-Bearing Notes Issued for Cash:**

   (1) The implicit interest rate is the rate that equates the cash received (present value) with the amounts received in the future.

   (2) The difference between the face amount and the present value of the note is the discount or premium and it is amortized over the life of the note.

b. **Interest-Bearing Notes with an Effective Rate Different than the Stated Rate:**

   (1) If a stated interest rate is unreasonable, an imputed interest rate must be used to determine the present value of the note.

   (2) Any discount or premium must be recognized and amortized over the life of the note.
3. Special note payable situations
   
a. **Notes exchanged for cash and some right or privilege:**
   
   (1) the difference between the present value of the payable and the amount of cash loaned should be regarded as a discount on the note.

   (2) an unearned income account should be credited for the same amount.

   (3) The unearned income is recognized as revenue each period as the right or privilege is exercised. Example: the right to purchase merchandise at low prices.

b. **Non-cash transactions:** the present value of the debt is measured by the fair value of the property, goods, or services changing hands or by an amount that reasonably approximates the market value of the note.

c. **Imputing an interest rate:**

   (1) the rate that would have resulted if an independent borrower and lender had negotiated a similar transaction.

   (2) When interest is imputed, the effective interest method **has** to be used.

4. Journal entries are similar to entries for bonds payable issued at a discount.

5. Mortgage Notes Payable
   
a. A promissory note secured by property.

b. Usually receive cash equal to face value of the note.

c. If lender assesses **points**, borrower receives less than face value of the note.

   (1) A point equals 1% of the notes’ face value.
(2) Record as a note with a discount.

d. Discuss fixed-rate vs. variable-rate mortgages.

E. Off-balance sheet financing.

1. Project financing arrangements arise when:

   a. Two or more entities form a new entity to construct an operating plant that will be used by both parties.

   b. The new entity borrows funds to construct the project and repays the debt from proceeds received from the project.

   c. Payment of the debt is guaranteed by the companies that formed the new entity.

2. Take-or-pay contracts: purchaser of goods signs an agreement with a seller to pay specified amounts periodically in return for an option to receive products.

   a. Payment is made even if purchaser does not take delivery of the goods.

3. Through-put agreements: same as take-or-pay contract, except that a service instead of a product is provided.

4. These arrangements are only disclosed in the footnotes to the financial statements. They are not recorded.

5. Rationale for off-balance sheet financing.

   a. Attempt to "enhance the quality" of the balance sheet.

   b. Conform to loan covenants.
c. "Balance" understatement of assets.

F. Reporting Long-Term Debt: Reported as one amount in the balance sheet and supported by additional comments in the notes.

1. If mature within one year, report as a current liability, unless retirement to be paid with other than current assets.

2. Disclosures generally indicate the nature of the liabilities, maturity dates, interest rates, call provisions, conversion privileges, restrictions imposed by borrower, and assets pledged as security.

3. Future payments for sinking fund requirements and maturity amounts of long-term debt during each of the next five years should be disclosed.

4. Right of setoff is generally not allowed because the netting of assets against liabilities results in the loss of important information about the rights and obligations of the company.

5. **Unconditional purchase obligations** (take-or-pay and through-put contracts) not recorded on the purchaser’s books are required to disclose
   a. The nature and term of the obligations.
   b. The total amount of the fixed and determinable portion of the obligations at the balance sheet date and for each of the next 5 years.
      (1) It is recommended that the amount of imputed interest necessary to reduce the total amount of the obligation to its present value be disclosed.
   c. The nature of any variable portions of the obligations.
   d. The amounts purchased under the obligations for each period for which an income statement is presented.
6. Analysis of long-term debt
   
a. **Solvency:** ability to pay interest and principle on long-term debt as it comes due.

b. Debt to total assets ratio = \( \frac{\text{total debt}}{\text{total assets}} \)
   
   (1) The higher the percentage, the greater the risk that the company may be unable to pay its maturing debt. 

c. Times interest earned ratio = \( \frac{\text{Income before interest and taxes}}{\text{Interest expense}} \)
   
   (1) The ability to meet interest payments as they come due.

G. **Appendix 14-A.** Accounting for Troubled Debt.

1. Accounting Issues

   a. Recognition—losses should be recorded immediately if it is **probable** that the loss will occur.

   b. Measurement—

      (1) Aggregate cash flows

      (2) Present value—original rate

      (3) Present value—market rate

2. Impairments

   a. An impaired loan exists when it is probable that the creditor will be unable to collect all amounts due (**principal and interest**) according to terms of the loan.
b. Impairment loss is the difference between the carrying value of the loan and the present value of the future cash flows discounted at its original rate.

3. Troubled Debt Restructurings

a. Settlement of debt

(1) Debtor (creditor) records gain (loss) equal to the excess of the carrying amount of the payable (receivable) over the fair value of the assets transferred.

(2) Debtor also recognizes gain or loss equal to the difference between the fair value of the assets transferred and their book value.

b. Modification of terms.

(1) Debtor does not record a gain when total future cash flows exceed the pre-restructuring carrying amount of the debt.

(2) Debtor does record a gain when the pre-restructuring carrying amount of the debt exceeds the future cash flows.

Illustration 14-5 summarizes the accounting procedures for loan impairments and troubled debt restructurings.