

Chapter Three

Non-Current Liabilities

3.1 Introduction

Liabilities that do not require the payment of cash, the shipment of goods, or the rendering of services in one year (or the next operating cycle, whichever is longer) for their liquidation are designated long-term liabilities or long-term debt. Examples of long-term debt are: bonds, mortgage notes, promissory notes, deposits received for utilities service, some obligations under pension and deferred compensation plans, certain types of lease obligations, deferred income tax credits, and some deferred revenue items.

Long-term debt may be collateralized (secured) by liens on business property of various kinds, for example, equipment (equipment notes), real property (mortgages), or securities (collateral trust bonds). Many companies issue debenture bonds that are backed only by the general credit standing of the issuer, and some companies have issued commodity backed bonds that are redeemable at prices linked to the prices of specified products such as gold and silver. The title of a long-term debt obligation, such as First Mortgage Bonds payable, may indicate the nature of collateral for the debt. Bonds may be issued that pay not interest (Zero - Coupon bonds) or that pay an exceptionally low rate of interest (deep-discount bonds).

3.2 Types of Bonds

Bonds are means of dividing long-term debt in to a number of small units. By dividing the debt into a smaller unit, amounts of money larger than which could be borrowed from a single source may be obtained from a large number of investors. There are different types of bonds. Let us see some of them.

1. Secured and Unsecured Bonds - Mortgage bonds are secured by a claim on real estate. Collateral trust bonds are secured by stocks and bonds of other corporations. A debenture bond is unsecured. A "Junk bond" (high-risk bonds issued by companies with a weak financial position) is unsecured and pays a high interest rate. These bonds are often used to finance leveraged buyouts.
2. Term, serial Bonds and callable Bonds - Bond issues that mature on a single date are called term bonds, and issues that mature in installments are called serial bonds. Serially maturing bonds are frequently used by school or sanitary districts,

municipalities, or other local taxing bodies that borrow money through a special levy. Callable Bonds give the issuer the right to call and retire the bonds prior to maturity.

3. Convertible, commodity - Backed, and deep discount bonds. If bonds are convertible into other securities of the corporation for a specified time after issuance, they are called convertible bonds. Commodity - baked bonds (also called "asset linked bonds") are redeemable in measures of a commodity, such as barrels of oil, tons of coal. Deep discount bonds are bonds that pay exceptionally low rate of interest. They are sold at a discount that provides the buyer's total interest pay off at maturity.
4. Registered and Bearer (coupon) Bonds - Bonds issued in the name of the owner are registered bonds and require surrender of the certificate and issuance of a new certificate to complete a sale. A bearer or coupon bond, however, is not recorded in the name of the owner and may be transferred from one owner to another by mere delivery.
5. Income and Revenue Bonds - Income bonds pay no interest unless the issuing company is profitable. Revenue bonds, so called because the interest on them is paid from specified revenue sources, are most frequently issued by airports, school districts, countries, toll- road authorities, and government bodies.

3.3 Accounting For Issuance of Bonds and Interest Expense

3.3.1. Issuance of Term Bonds

In a typical term bond contract, the issuer promises two essentially different kinds of future payments (1) the payment of a fixed amount (face amount or principal) on a specified date; and (2) the periodic payment of interest, usually at six-month intervals, in an amount expressed as a percentage of the face amount of the bonds.

If the effective interest rate is identical to the nominal rate, the bonds will sell at face amount. If the effective interest rate is higher than the nominal rate, the bonds will sell at a discount. (Zero-coupon bonds pay no interest and thus are issued at a deep discount) conversely, if the effective interest is less than the nominal rate, the bonds will sell at a premium. Differences between the nominal rate and the yield rate thus are adjusted by changes in the price at which the bonds are issued.

3.3.1.1. Bond Discount and Premium in the Balance Sheet

At the time of issue, the carrying amount of bonds payable is equal to the proceeds received, because these proceeds are computed as the present value of all future payments at the yield rate set by the money market. Bond discount and bond premium are valuation amounts relating to bonds payable. The discount or premium should be reported in the balance sheet as a direct addition to or deduction from the face amount of the bond. It should not be classified a deferred change or deferred credit.

Bonds are presented in balance sheet as follows:

<u>Bonds issued at a discount</u>		<u>Bonds issued at a premium</u>	
Long-term debt:		Long-term debt:	
Bond payable (face amount)..... xx		Bond payable (face amount).... xx	
Less: discount	(xx)	Add: Premium	
xx			
Carrying amount	<u>xx</u>	Carrying amount	<u>xx</u>

3.3.1.2 Term Bond Interest Expense

Because differences between the effective rate and the nominal rate of interest are reflected in bond prices, the amount of premium or discount affects the periodic interest expense of the issuer. If bonds are issued at a yield rate greater than the nominal rate, the discount represents an additional amount of interest that will be paid by the issuer at maturity. Similarly if the bonds are issued at a yield rate less than the nominal rate, the premium represents an advance paid by bond holders for the right to receive larger annual interest checks and is viewed as a reduction in the effective interest expense. The premium in effect is returned to bond holders in the form of larger periodic interest payments.

The present value of the bonds on the date of issuance differs from their face amount because the market rate of interest differs from the periodic interest payments provided for in the bond contract. Therefore, the process of amortizing the bond discount or premium in conjunction with the computation of periodic interest expense is a means of recording the change in the carrying amount of the bonds as

they approach maturity. In the bond discount case, the increase in the carrying amount of the bonds is caused by the decrease in bond discount through amortization. Similarly, in the bond premium case, the decrease in the carrying amount of the bonds is caused by the decrease in bond premium through amortization.

3.3.1.3 Interest Method of Amortization for Term Bonds

In this method, the bond interest expense in each accounting period is equal to the effective interest expense, i.e., the effective rate of interest applied to the carrying amount of the bonds at the beginning of the period. It is theoretically sound and an acceptable method.

Under this method;

- (1) Bond interest expense is computed first by multiplying the carrying value of the bonds at the beginning of period by the effective interest rate.
- (2) The bond discount or premium amortization is then determined by comparing the bond interest expense with the interest to be paid.

The Computation of the amortization is as follows:

$$\left(\begin{array}{ccc} \text{Bond Interest} \\ \text{Carrying value} & & \text{Effective} \\ \text{of Bonds at} & \text{X} & \text{Interest} \\ \text{Beginning of} & & \text{Rate} \\ \text{period} \end{array} \right) - \left(\begin{array}{ccc} \text{Bond Interest} \\ \text{Face amount} & \text{X} & \text{Stated} \\ \text{Of} & & \text{Interest} \\ \text{Bonds} & & \text{rate} \end{array} \right) = \text{Amortization Amount}$$

3.3.1.4 Straight- Line Method of Amortization

Under this method the additional interest expense (discount) or reduction of interest expense (premium) may be allocated evenly over the term of the bonds. It results in a uniform periodic interest expense. The use of straight-line method is acceptable if it is applied to immaterial amounts of discount or premium.

Illustration Assume that Br. 5000,000 of five-year, 10% term bonds are authorized and issued by a corporation. Assume also that the effective (yield) rate of interest for such types of bonds is:

Case 1. 12%

Case 2. 8%

Required

1. Compute the amount of annual interest.
2. Compute the amount of proceeds from bonds under case 1.
3. Compute the amount of discount on bonds under case 1.
4. Present the journal entry to record the issuance of the bonds under case 1.
5. Compute the amount of proceeds and premium on bonds under case 2.
6. Present the journal entry to record the issuance of the bonds under case 2.

Solution

1. Amount of annual interest
 $= 0.10 \times \text{Br. } 5000,000 = \text{Br. } 500,000$
2. Amount of proceeds under case 1 (12%)
Present value of Br. 500,000 due in 5 years at 12%
 $(\text{Br. } 5000,000 \times 0.56743)$ Br.
2,837,150
Present value of ordinary annuity of Br. 500,000 interest
Every year for 5 years at 12% $(\text{Br. } 500,000 \times 3.60478)$
1,802,390
Proceeds of bond issue Br. 4,639,540
3. Amount of discount under case 1 (12%)
Face value of bonds Br.
5000,000
Present value of bonds 4,639,540
Discount on bonds Br.
360,460
4. Journal entry to record issuance of bonds under case 1
Cash 4,639,540
Discount on Bonds payable 360,460
Bonds payable 5000,000
5. Amount of proceeds under case 2 (8%)
Present value of Br. 5000,000 due in 5 years at 8% $(\text{Br. } 5000,000 \times 0.68068)$
Br. 3,402,900
Present value of ordinary annuity of Br. 500,000 interest
Payable every year for 5 years at 8% $(\text{Br. } 500,000 \times 3.99271)$
1,996,355

Proceeds of bond issue Br.
5,399,255

Amount of premium on bonds = Br. 5399,255 - Br. 5000,000 = Br.
399,255

6. Journal entry to record issuance under case 1

Cash	5,399,255	
Bonds payable		5000,000
Premium on Bonds payable		399,255

Check Your Progress

- i. Bonds with a nominal rate of interest of 7% are issued to yield 8% will bond sell at a premium or a discount?
- ii. If bonds are issued at a premium and the interest method is used to amortize the premium, will the annual interest expense increase or decline over the term of the bonds?
- iii. Why is the interest method of amortization of premium or discount on bonds payable considered conceptually superior to the straight - line method?

3.3.2. Issuance of Serial Bonds

Serial bond provides for payment of the principal in periodic installments. Serial bonds have the advantage of gearing the issuer's debt repayment to its periodic cash inflow from operations.

The proceeds of a serial bond issue are the present value of the series of principal payments plus the present value of the interest payments, all at the effective interest rate equals the proceeds received for the bonds.

At this point the question arises: is there any single interest rate applicable to a serial bond issue? We often refer loosely to the rate of interest, when in fact in the market at any one time there are several interest rates, depending on the terms, nature, and length of the bond contract offered.

In a specific serial bond issue, the term of all bonds in the issue is the same except for the differences in maturity. However, because short-term interest rates often differ from long-term rates, it is likely that each maturity will sell at a different yield rate, so that there will be a different discount or premium relating to each maturity.

In many cases, high degree of precision in accounting for serial bond issues is not possible because the yield rate for each maturity is not known. Underwriters may bid on an entire serial bond issue on the basis of an average yield rate and may not disclose the particular yield

rate for each maturity that was used to determine the bid price. In this situation we may have to assume that the same yield rate applies to all maturities in the issue, and proceed accordingly.

If interest method is to be used in according for serial bond interest expense, the procedure is similar to the illustrated in connection with term bonds.

A variation of the straight-line method, known as the bonds outstanding method, results in a decreasing amount of premium or discount amortization each accounting period proportionate to the decrease in the amount of outstanding serial bonds.

3.3 Extinguishments of long-term debt

Firms typically use the proceeds of long-term debt instruments for the entire debt term. At maturity all discount or premium is fully amortized; gains and losses are not recognized on normal retirement. Firms can, however, retire debt before maturity. Early retirement of debt decreases the debt-equity ratio and can facilitate future debt issuances.

A major incentive for retiring bonds before maturity is an increase in interest rates, which causes bond prices to decrease significantly below book value. The decline in price enables the issuer to require bonds at a gain. When interest rates drop, firms use the opportunity to retire more expensive bonds and issue bonds with lower interest rates. A loss occurs in this case because bond prices have increased above book value.

The issuer may retire the debt by exercising the call provision, by acquiring the bonds in the open market, in a debt-equity swap, in a refunding, or by means of an in-substance defeasance.

These extinguishments of long-term debt are discussed in the following sections. Typically, a gain or loss (before income tax effect) on the extinguishments of term or serial bonds prior to maturity is recorded equal to the difference between the amount paid to retire the bonds and their carrying amount, including any amortized bond issue costs should be adjusted to the date of extinguishments before the journal entry to record the extinguishments is prepared.

3.3.1 Extinguishments by Calling Bonds

In an open-market purchase of bonds, the issuer pays the current market price as would any investor purchasing the bonds. If bonds carry a call privilege, the issuer may retire the debt by paying the call price during a specified period. The call price places a ceiling on the

market price. Investors who purchase callable are at a disadvantage if interest rates decline because they may have to surrender bonds that pay higher interest than non-callable bonds. In addition, the call price typically exceeds face value by the call premium, which can decline each year of the bond term.

Gains and losses on extinguishments of bonds reflect the changes in interest rates since the bonds were issued. Material gains and losses on the extinguishments of bonds are reported as extraordinary items in the income statement.

When an entire bond issue is called for redemption, the entire unamortized premium or discount and bond issue costs are written off. Losses generally result on such redemptions because the sliding call prices ordinarily are in excess of bond carrying amounts on corresponding call dates.

If bonds are called but not formally retired, a treasury bonds ledger account may be debited for the face amount of the treasury bonds held, but a gain or loss still should be recognized. The treasury bonds account is not an asset; it is deducted from bonds payable in the balance sheet. Interest is not paid on treasury bonds unless they are held as an investment by a company sponsored fund, such as an employee pension fund.

3.3.2 Extinguishments through Open-Market Acquisition

If interest rates are rising and bond prices are falling, it may be appropriate for the issuer to realize a substantial gain by acquiring its bonds in the open market from present bondholders at a substantial discount.

3.3.3 Extinguishments through Refunding

Refunding is the process of retiring a bond issue with the proceeds of a new bond issue. One way of refunding is to issue new bonds in exchange for the old bonds. Cash is involved if the bond issues have different market values. More frequently, however, the proceeds from a new bond issue are used to retire the old issue because the holders of the old issue do not necessarily wish to become new creditors. In both cases, the accounting for refunding is similar to all forms of debt extinguishments.

a. Refunding by direct exchange of debt securities

b. Refunding by issuing new debt and purchasing old debt.

3.3.4 Extinguishment through Debt-Equity Swap

Instead of using cash to acquire its outstanding bonds in the open market, the issuer may enter into a debt-equity swap arrangement with an investment banking house or serve as a broker. The broker acquires the issuer's bonds over a period of time in the open market and exchanges the bonds for shares of the issuer's common stock, which may be unissued or in the treasury. The issuer thus retires the bonds the bonds acquired in the swap with the broker. By this means, the issuer extinguishes long-term debt without using cash, improves its debt-to equity ratio (the ratio of total liabilities to total stockholders' equity)

3.3.5 Extinguishments by in-Substance Defeasance

In-substance defeasance is an arrangement whereby a company provides for the future repayment of one or more of its long-term debt issues by placing purchased securities in an irrevocable trust, the principal and interest of which are pledged to pay off the principal and interest of its own debt securities as they mature. The company, however, is not legally released from being the primary obligor under the debt that is still outstanding. In some cases, debt holders are not even aware of the transaction and continue to look to the company for repayment.

There are several reasons for arranging such an extinguishment. First, the debt is removed from the balance sheet without actually being repurchased. Actual repurchase is sometimes a problem because (1) it may be costly if a high call premium is required to be paid or (2) much of the debt may be publicly held and may therefore be difficult to buy back in large quantities. Second, because the cost of the purchased securities is usually less than the book value of the company's debt in times of rising interest rates (as interest rates rise, the fair value of the outstanding debt falls below book value), the company records a gain on its income statement. The gain usually does not result in a tax liability because for tax purposes the debt is not considered retired.

To be considered a debt extinguishment (removal from the balance sheet), the debtor must place (1) cash (2) risk-free securities in an irrevocable trust to be used solely for satisfying the interest and principal of the debt. And, the possibility that the debtor will be required to make any future payments with respect to the debt must be remote.

Check Your Progress

1. What is meant by refunding?
2. When do we consider as appropriate extinguishments of debts through open-market acquisition?
3. In extinguishments of bonds through debt-Equity swap, how do we compute gain or loss on extinguishments?
4. What is meant by in-substance defeasance?