

CHAPTER 14: LONG-TERM FINANCIAL LIABILITIES

1. Characteristics of Long-Term Debt Instruments

Bonds

Companies issue *bonds* on the capital markets to bondholders. They use the resulting funds to finance their long-term operations. Bonds signify a specific type of long-term debt. A bond's *face value* is the amount of money the company pays to bondholders on the *due date* or the *maturity date*. Typically bonds carry a \$1,000 face-value, though, it is not uncommon to see bonds with different face values (e.g., \$100, \$10,000). Accompanying any bond is a *bond indenture*, which is a contractual promise made by the company to the bondholders. Essentially a bond indenture represents the legal contract connecting the company's obligation to the bondholders. To illustrate this point, the company promises to pay the bondholders a sum of money on a designated maturity date, as well as periodic interest payments, and these interest payments are equal to the coupon rate multiplied by the bond's face value multiplied by the pertinent time-frame. Generally a bond's coupon rate is expressed as an annual rate even though most companies pay interest on a semi-annual basis. In contrast, the *market interest rate* – which is also known as the *effective interest rate* – is the rate of return investors (i.e., bondholders) expect to earn on comparatively risky instruments. Investors expect to earn a rate of return that is commensurate with the rate they can earn by investing their money elsewhere. *Ceteris paribus*, investors expect higher returns on relatively riskier instruments. The bond indenture also typically contains *bond covenants*, which are contractual terms prohibiting the company from doing certain things. Usual bond covenants restrict the issuer from assuming too much debt, mandate the issuer to disseminate audited financial statements, and limit the number and magnitude of new capital investments undertaken by the issuer. Bond covenants are intended to minimize the investor's risk exposure.

Bond Issuance

These are the 3 primary ways a company can issue and market bonds on the capital markets:

1. *Firm Underwriting*: A company issues bonds vis-à-vis an investment banker, whereby the investment banker guarantees a certain sum of money to the company. This arrangement sees the investment banker assume all the risk associated with selling the bonds.
2. *Best Efforts Underwriting*: A company issues bonds vis-à-vis an investment banker, whereby the investment banker charges a commission for selling the bonds to investors. In this case, the company (issuer) assumes more risk than the investment bank does.
3. *Private Placement*: A company privately issues bonds by selling them directly to a large institution, which may or may not be a financial institution. The company not only serves as the underwriter but also assumes all risk associated with the bond issuance.

Notes Payable

Notes payable are written promises, whereby the company promise to repay the lender a specific sum of money on a specified future date. Notes payable may arise from purchases, financing, or other transactions.¹ (Recall from Chapter 13 that notes can have both a long-term and a short-term time-horizon.) Notes payable are very comparable to bonds, given that they both constitute long-term debt. Moreover, the valuation of notes and bonds is comparable in most respects. However, notes payable, unlike bonds, rarely trade on the capital markets. Further small companies tend to issue notes payable, whereas public corporations are more inclined to secure capital by issuing bonds on the capital markets.

Common Types of Bonds and Notes

Registered bonds are issued in the owner's name. The owner's name appears on the bond certificate. These bonds are more difficult to sell, being as a new certificate must be issued each time the bond exchange hands. In contrast, a *bearer* or *coupon bond* is not registered in the owner's name, thereby making it easier for investors to buy and sell these bonds.

¹ See page 1602 of the textbook.

Secured debt is backed by a pledge of some type of collateral. As an example, *collateral trust bonds* are secured by assets, like shares and bonds in other corporations. This form of debt is less risky for investors, being as they are entitled to receive the securities held in trust in the event the issuing company defaults on its debt obligation. Another type of secured debt is *mortgage bonds/notes*. Companies also issue *unsecured debt*, which is any type of debt that is not backed by collateral. *Debenture bonds* and *junk bonds* (highly risky) are two examples of unsecured debt.

Term bonds and *term notes* signify debt that matures on a specific date, whereas *serial bonds* and *serial notes* mature in a series of installments. *Perpetual bonds* and *perpetual notes* are debt instruments that either have an extremely long time horizon (e.g., 100+ years) or do not have a maturity date.

Income bonds pay interest to bondholders when the company achieves specific revenue thresholds. In other words, regular interest payments are not contractually guaranteed to bondholders. *Revenue bonds* pay interest to bondholders, whereby interest payments are derived from specific sources of revenue. Again, regular interest payments are not contractually guaranteed to bondholders. Finally *deep discount bonds/notes*² pay virtually no interest. However they are sold to investors at significant discounts, which means that investors receive a lump-sum interest payoff when the debt-instruments mature. In other words, they receive interest equal to the difference between the debt's purchase price versus its maturity value.

Commodity-backed bonds/debt (e.g., *asset-linked debt*) are redeemable in specific commodity amounts (e.g., oil, coal, gold, and so forth).

Callable bonds and notes (e.g., demand loans) provide a license to the company (issuer) to call and retire its debt before the maturity date. Inversely, *convertible debt* is debt that allows either the holder or the issuer to convert the debt into other securities, like common shares.

2. Measurement

A bond is measured and recognized at the present value of the summation of the associated principal obligation and interest payments. Sometimes bonds/notes are issued at *par*, whereby the company collects an amount equal to the bond's face-value (or maturity value). Debt is issued at par when the coupon rate is commensurate with the effective market rate and no interest has accrued between the points, whereby the bonds are issued and marketed, respectively. The company prepares this journal entry when it issues bonds at par:

<i>Cash</i>	<i>xxx</i>	
<i>Bonds Payable</i>		<i>xxx</i>

As noted, companies are obliged to pay interest (with certain, specific exceptions) to bondholders. The company prepares this journal entry when it pays interest to bondholders:

<i>Interest Expense</i>	<i>xxx</i>	
<i>Cash</i>		<i>xxx</i>

In practice, interest payments do not always coincide with a company's year-end. Consequently a company is obliged to accrue any outstanding interest at year-end vis-à-vis this journal entry:

<i>Interest Expense</i>	<i>xxx</i>	
<i>Interest Payable</i>		<i>xxx</i>

When the company subsequently pays interest to bondholders, then it records this journal entry:

<i>Interest Payable</i>	<i>xxx</i>	
<i>Interest Expense</i>	<i>xxx</i>	
<i>Cash</i>		<i>xxx</i>

² One note here: Deep discount bonds/notes encompass zero-interest debentures, bonds, or notes.

Frequently bonds and notes are sold for a *premium* (i.e., more than 100% of their face value) or at a discount (i.e., less than 100% of their face value). There are several reasons discounts/premiums manifest but the primary reason bonds are issued at some value other than par is that the bond's coupon rate \neq the effective market interest rate. There is an inverse relationship between a bond's coupon rate and the market rate. Ceteris paribus, the following holds: (1) Bonds/notes are issued at a premium when their coupon rate $>$ effective market interest rate; (2) Bonds/notes are issued at a discount when their coupon rate $<$ effective market interest rate; (3) Bonds/notes are issued at par when their coupon rate = the effective market interest rate, *and* no interest has accrued. The company prepares this same journal entry regardless of whether a bond is issued at par, a discount or a premium:

<i>Cash</i>	<i>xxx</i>	
<i>Bonds Payable</i>		<i>xxx</i>

One note here: The amount of the above entry will logically reflect the cash collected by the company. As an example, \$980 is debited to cash and bonds payable (respectively) if a bond is issued at 98%.

Discounts and Premiums

A company must amortize any discount or premium related to a bond issued at some value that is not tantamount to its par value. The reason premiums/discounts are amortized over the life of the bond is to ensure that the carrying value of the bond eventually reaches its face-value on the maturity date. Please note: "Bond interest expense is increased by amortizing a discount and decreased by amortizing a premium."³

There are 2 methods for amortizing a discount/premium, and they are (1) the straight-line method, and (2) the effective interest method. Note: Both methods result in the same total amount of interest expense over the term of the bonds. ASPE permits companies to apply either of the two methods, while, IFRS mandates application of the effective interest method.

Straight-Line Method

Application of this method sees an equal amount of the premium/discount amortized each period over the life of the debt. To determine the amount of the premium/discount that is amortized, you simply take the total value of the premium/discount, and then you divide it by life of the bond (i.e., number of years the bond is outstanding). This method bears a strong resemblance to the straight-line method of depreciation, whereby the cost of a capital asset is spread evenly over its estimated useful life. Please note: Bond interest expense is increased by amortizing a discount and decreased by amortizing a premium. The company prepares the following journal entry to record interest expense in relation to any bonds issued at a discount:

<i>Interest Expense</i>	<i>xxx</i>	
<i>Bonds Payable</i>		<i>xxx</i>
<i>Cash</i>		<i>xxx</i>

The company prepares this journal entry to record interest expense in relation to any bonds issued at a premium:

<i>Interest Expense</i>	<i>xxx</i>	
<i>Bonds Payable</i>	<i>xxx</i>	
<i>Cash</i>		<i>xxx</i>

Effective-Interest Method

Application of this method sees a different amount of the premium/discount amortized each period. This method turns on recognizing these amounts in the journal entry: (1) Interest Expense = Carrying Value of Debt x Effective Interest Rate x Time, (2) Cash disbursed to bondholders = Coupon Rate x Face Value of Bonds x Time, (3) Discount/Premium Amortized = (1) - (2). As noted above: Bond Interest Expense is increased by amortizing a discount and decreased by amortizing a premium. The format of the previous two entries is exactly the same as the ones prepared in accordance with the effective interest method.

³ Retrieved from page 892 of the textbook.

Please Note: It is useful to prepare an amortization schedule whenever you prepare bond-related journal entries. This is especially true when accounting for bonds issued at either a discount or a premium. Refer to Illustration 14-4 and 14-6 on pages 894 and 895, respectively.

Special Situations

Consideration is given in the text to a number of special circumstances, whereby it is more complex to determine the fair value of a debt instrument. As an example, it is more difficult to evaluate the fair value of long-term notes, being as they are infrequently traded on capital/financial markets. In this case, the consideration exchanged between the parties may not be commensurate with the fair value of the loan or note.⁴

Notes Issued for Property, Goods and Services (E14-9)

One special situation analyzed in the text pertains to a scenario that sees a non-marketable debt instrument exchanged for property, goods, or services. To illustrate, Company X can purchase equipment from Company Y, whereby Company X issues a long-term note (i.e., the consideration) to company Y. The transaction should be accounted for at fair-value. Always use the fair value of the monetary asset/liability. A note payable is 1 type of monetary liability. The fair value of the note payable is equal to the present value of the note's principal obligation and interest payments. If it is not possible to determine the fair value of the monetary asset/liability, then you should use the fair value of the property, goods, or services for financial reporting purposes.

3. Recognition and Derecognition

Any outstanding debt remains on the company's financial statements until the debt is *extinguished*. When the debt is extinguished, then it is *derecognized* from the financial statements. Debt that is held to maturity (i.e., extinguished on the maturity date) does not give rise to either a gain or a loss for the reason that premiums, discounts and any issuing costs are fully amortized by the maturity date. Expressed differently, the debt's carrying value on the maturity date is commensurate with the debt's face value.

Repayment before Maturity Date

Sometimes a company retires debt before the maturity date. As an example, companies issue callable debt and they often retire (i.e., call) this debt before its maturity date. The reacquisition price is the consideration paid by the company (i.e., debtor) to the creditor to extinguish the debt before the maturity date. If the reacquisition price \neq the debt's carrying value, then a gain/loss is recognized upon the derecognition of the debt.

Exchange of Debt Instruments (P14-8)

A company can obviously extinguish outstanding debt by paying cash to the lender. Another possibility is known as *refunding*. Provided that the terms accompanying the new debt are *substantially* different, then the presumption is made that the company not only extinguished the old debt but also issued new debt to replace the old debt. Refunding debt is generally bound by conditions specified in the original indenture. A case in point: the indenture may specify that the old debt can only be called and redeemed by the company at a specific maturity value (e.g., 104). As noted, any debt settled prior to the maturity date generally gives rise to gains/losses, which are reported by both the lender and the borrower.

Troubled Debt Restructurings (P14-13)

Another type of debt settlement is known as a troubled debt restructuring. As the text notes, a company is sometimes required by the creditor to repay or restructure debt because the debtor is unable to make principal and/or interest payments. The creditor, in this case, may grant a concession to the debtor, which it would not otherwise offer the debtor under ordinary circumstances.

⁴ Refer to page 897 of the text for further details, and do carefully review the special situations analyzed in the text.

A troubled debt restructuring can be structured as 1 of these 2 mutually exclusive transactions: (1) *Settlement* of the debt at less than its carrying amount; or (2) *Continuation* of the debt with a modification of the terms.

It is crucial to determine whether a troubled debt restructuring is a settlement or a continuation for financial reporting purposes because they are accounted for in different ways. How do you determine whether a troubled debt restructuring is a settlement versus a continuation? If the creditor makes *substantial* modifications to the terms of the debt, then the transaction is accounted for as a settlement transaction. The restructuring is deemed a settlement (i.e., a substantial restructuring) if either of these conditions is satisfied:

1. The discounted present value under the new terms of the new debt – *discounted using the original effective interest rate⁵ (i.e., historic rate)⁶* – is at least 10% different from the discounted present value of the remaining cash flows under the old debt.
2. There is a change in the creditor and the original debt is legally discharged.⁷

Accounting for a Settlement

The debtor eliminates the carrying value of the old debt from its books. A gain or loss (usually a gain) is recognized upon the settlement of the debt.

A settlement might see the debtor receive a new note from the creditor in a replacement of the old note. The new note is measured at fair value. The fair value of the new note is equal to the note's discounted principal obligation and the associated interest payments. The debtor recognizes a gain/loss as the difference between (1) the fair value of the new note, and (2) the carrying value of the old note.

The debtor prepares this journal entry in the event a gain is realized upon settlement:

<i>Notes Payable (old debt)</i>	<i>xxx</i>	
<i>Notes Payable (new debt)</i>		<i>xxx</i>
<i>Gain on Restructuring Debt</i>		<i>xxx</i>

Conversely, the creditor prepares this journal entry:

<i>Notes Receivable [new debt (i.e., new asset)]</i>	<i>xxx</i>	
<i>Loss on Restructuring Debt</i>	<i>xxx</i>	
<i>Notes Receivable [old debt (i.e., old asset)]</i>		<i>xxx</i>

Please note: A settlement can also see the debtor: transfer non-cash assets to the creditor, issue shares to the creditor, or issue new debt to another creditor and then use the resulting funds to repay the old debt.⁸

Accounting for a Continuation

A troubled debt restructuring is accounted for as a continuation whenever both of the above conditions are not satisfied. This transaction still sees an exchange of debt. However, the terms of the new debt are not *substantially* different from the terms of the old debt. The old debt is seen to continue to exist on the debtor's SFP but with a new set of terms. Bearing this in mind, the debtor continues to recognize the old debt at its current carrying value, and, therefore, no gain or loss transpires in the case of a continuation. The debtor, though, determines a new effective rate to calculate and record interest expense in all periods following the restructuring of the debt. Use a financial calculator to determine the effective interest rate in relation to the specific provisions of the new debt.

⁵ The original effective rate is simply the market rate when the old debt was issued.

⁶ The original effective rate is used to discount both the old debt and the new debt for the purposes of consistency and comparability.

⁷ Direct excerpt from page 903 of the textbook.

⁸ Please carefully review the illustration on page 902.

Here is the information entered into the financial calculator to determine the new effective interest rate:

- FV = New maturity value of the debt.⁹
- PV = Carrying value of the debt on the restructuring date.
- N = Number of periods until the debtor repays the principal obligation back to the creditor.
- PMT = Coupon Rate x Principal Obligation x Time.
- COMP I.

Please note: Most financial calculator require one of the FV, PV, or PMT amounts to be entered as a negative value. It does not matter which one is entered as a negative value. As an example, if the future value of the restructured debt is \$100,000, the carrying value of the debt on the restructuring date is \$75,000, and the debtor is required to make semi-annual payments of \$2,000, and the debt matures in 10 years, then you can enter one of these three possible data-sets into a financial calculator:

FV = -100,000	FV = 100,000	FV = 100,000
PV = 75,000	PV = -75,000	PV = 75,000
N = 20	N = 20	N = 20
PMT = 2,000	PMT = 2,000	PMT = -2,000
COMP I	COMP I	COMP I

When the debtor subsequently accounts for interest expense, it debits the carrying value of the note payable in a reflection of the fact that it is essentially amortizing the discount associated with the newly structure note.

⁹ The new maturity value will be lower than the old maturity value. Hence the transaction is a troubled debt restructuring.