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### Non-Current Liabilities

<table>
<thead>
<tr>
<th>Bonds Payable</th>
<th>Long-Term Notes Payable</th>
<th>Special Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuing bonds</td>
<td>Notes issued at face value</td>
<td>Extinguishments</td>
</tr>
<tr>
<td>Types and ratings of bonds</td>
<td>Notes not issued at face value</td>
<td>Fair value option</td>
</tr>
<tr>
<td>Valuation</td>
<td>Special situations</td>
<td>Off-balance-sheet financing</td>
</tr>
<tr>
<td>Effective-interest method</td>
<td>Mortgage notes payable</td>
<td>Presentation and analysis</td>
</tr>
</tbody>
</table>

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*Intermediate Accounting*
*IFRS 2nd Edition*
*Kieso, Weygandt, and Warfield*
After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Explain the accounting for long-term notes payable.
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the fair value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
Non-current liabilities (long-term debt) consist of an expected outflow of resources arising from present obligations that are not payable within a year or the operating cycle of the company, whichever is longer.

Examples:

- Bonds payable
- Long-term notes payable
- Mortgages payable
- Pension liabilities
- Lease liabilities

Long-term debt has various covenants or restrictions.
Issuing Bonds

- Bond contract known as a **bond indenture**.
- Represents a promise to pay:
  1. sum of money at designated maturity date, plus
  2. periodic interest at a specified rate on the maturity amount (face value).
- Paper certificate, typically a €1,000 face value.
- Interest payments usually made semiannually.
- Used when the amount of capital needed is too large for one lender to supply.
After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
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7. Describe the accounting for the fair value option.
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9. Indicate how to present and analyze non-current liabilities.
Types and Ratings of Bonds

Common types found in practice:

- Secured and Unsecured (debenture) bonds.
- Term, Serial, and Callable bonds.
- Convertible, Commodity-Backed, Deep-Discount bonds.
- Registered and Bearer (Coupon) bonds.
- Income and Revenue bonds.
# Types and Ratings of Bonds

## Corporate bond listing.

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Coupon</th>
<th>Maturity</th>
<th>Price</th>
<th>Yield</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vodafone Group</td>
<td>5.00</td>
<td>2018/06/04</td>
<td>106.66</td>
<td>4.05</td>
<td>AA</td>
</tr>
<tr>
<td>Telecom Italia S.p.A.</td>
<td>5.25</td>
<td>2022/10/02</td>
<td>100.00</td>
<td>5.25</td>
<td>BB⁺</td>
</tr>
</tbody>
</table>

**What do the numbers mean?**

- **Company Name**
- **Interest rate paid as a % of par value**
- **Price as a % of par**
- **Interest rate based on price**
- **Creditworthiness**
LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Explain the accounting for long-term notes payable.
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the fair value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
Valuation of Bonds Payable

Issuance and marketing of bonds to the public:

- Usually takes weeks or months.
- Issuing company must
  - Arrange for underwriters.
  - Obtain regulatory approval of the bond issue, undergo audits, and issue a prospectus.
  - Have bond certificates printed.
Valuation of Bonds Payable

Selling price of a bond issue is set by the

- supply and demand of buyers and sellers,
- relative risk,
- market conditions, and
- state of the economy.

Investment community values a bond at the present value of its expected future cash flows, which consist of (1) interest and (2) principal.
Valuation of Bonds Payable

Interest Rate

- **Stated, coupon, or nominal rate** = Rate written in the terms of the bond indenture.
  - Bond issuer sets this rate.
  - Stated as a percentage of bond face value (par).

- **Market rate or effective yield** = Rate that provides an acceptable return commensurate with the issuer’s risk.
  - Rate of interest actually earned by the bondholders.
Valuation of Bonds Payable

How do you calculate the amount of interest that is actually paid to the bondholder each period?

\[(\text{Stated rate} \times \text{Face Value of the bond})\]

How do you calculate the amount of interest that is actually recorded as interest expense by the issuer of the bonds?

\[(\text{Market rate} \times \text{Carrying Value of the bond})\]
Valuation of Bonds Payable

Assume Stated Rate of 8%

<table>
<thead>
<tr>
<th>Market Interest</th>
<th>Bonds Sold At</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td>Premium</td>
</tr>
<tr>
<td>8%</td>
<td>Par Value</td>
</tr>
<tr>
<td>10%</td>
<td>Discount</td>
</tr>
</tbody>
</table>
Illustration: Santos Company issues R$100,000 in bonds dated January 1, 2015, due in five years with 9 percent interest payable annually on January 1. At the time of issue, the market rate for such bonds is 9 percent.
Bonds Issued at Par

ILLUSTRATION 14-1
Time Diagram for Bonds Issued at Par

ILUSTRATION 14-2
Present Value Computation of Bond Selling at Par

Present value of the principal:

Present value of the interest payments:

Present value (selling price) of the bonds
Bonds Issued at Par

**Journal entry** on date of issue, Jan. 1, 2015.

- Cash: 100,000
- Bonds payable: 100,000

**Journal entry** to record accrued interest at Dec. 31, 2015.

- Interest expense: 9,000
- Interest payable: 9,000

**Journal entry** to record first payment on Jan. 1, 2016.

- Interest payable: 9,000
- Cash: 9,000
Illustration: Assuming now that Santos issues R$100,000 in bonds, due in five years with 9 percent interest payable annually at year-end. At the time of issue, the market rate for such bonds is 11 percent.
Bonds Issued at a Discount

ILLUSTRATION 14-3
Time Diagram for Bonds Issued at a Discount

ILLUSTRATION 14-4
Present Value Computation of Bond Selling at Discount

Present value of the principal:

Present value of the interest payments:

Present value (selling price) of the bonds
Bonds Issued at a Discount

**Journal entry** on date of issue, Jan. 1, 2015.

Cash 92,608

Bonds payable 92,608

**Journal entry** to record accrued interest at Dec. 31, 2015.

Interest expense ($92,608 x 11%) 10,187

Interest payable 9,000

Bonds payable 1,187

**Journal entry** to record first payment on Jan. 1, 2016.

Interest payable 9,000

Cash 9,000
Bonds Issued at a Discount

When bonds sell at less than face value:

► Investors demand a rate of interest higher than stated rate.

► Usually occurs because investors can earn a higher rate on alternative investments of equal risk.

► Cannot change stated rate so investors refuse to pay face value for the bonds.

► Investors receive interest at the stated rate computed on the face value, but they actually earn at an effective rate because they paid less than face value for the bonds.
After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Explain the accounting for long-term notes payable.
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the fair value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
Bond issued at a discount - amount paid at maturity is more than the issue amount.

Bonds issued at a premium - company pays less at maturity relative to the issue price.

Adjustment to the cost is recorded as bond interest expense over the life of the bonds through a process called amortization.

Required procedure for amortization is the effective-interest method (also called present value amortization).
Effective-interest method produces a periodic interest expense equal to a constant percentage of the carrying value of the bonds.

**Effective-Interest Method**

**ILLUSTRATION 14-5**
Bond Discount and Premium Amortization Computation

\[
\text{Bond Interest Expense} = \text{Carrying Value of Bonds at Beginning of Period} \times \text{Effective-Interest Rate} - \text{Face Amount of Bonds} \times \text{Stated Interest Rate} = \text{Amortization Amount}
\]
Effective-Interest Method

Bonds Issued at a Discount

Illustration: Evermaster Corporation issued €100,000 of 8% term bonds on January 1, 2015, due on January 1, 2020, with interest payable each July 1 and January 1. Investors require an effective-interest rate of 10%. Calculate the bond proceeds.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity value of bonds payable</td>
<td>€100,000</td>
</tr>
<tr>
<td>Present value of €100,000 due in 5 years at 10%, interest payable semiannually (Table 6-2); FV(PVF, 10.5%); (€100,000 × .61391)</td>
<td>€61,391</td>
</tr>
<tr>
<td>Present value of €4,000 interest payable semiannually for 5 years at 10% annually (Table 6-4); R(PVF-OA, 10.5%); (€4,000 × 7.72173)</td>
<td>30,887</td>
</tr>
<tr>
<td>Proceeds from sale of bonds</td>
<td>(92,278)</td>
</tr>
<tr>
<td>Discount on bonds payable</td>
<td>€7,722</td>
</tr>
</tbody>
</table>

ILLUSTRATION 14-6
Computation of Discount on Bonds Payable
## SCHEDULE OF BOND DISCOUNT AMORTIZATION

**Effective-Interest Method—Semiannual Interest Payments**

5-Year, 8% Bonds Sold to Yield 10%

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td></td>
<td></td>
<td></td>
<td>€ 92,278</td>
</tr>
<tr>
<td>7/1/15</td>
<td>€ 4,000</td>
<td>€ 4,614</td>
<td>€ 614</td>
<td>92,892</td>
</tr>
<tr>
<td>1/1/16</td>
<td>4,000</td>
<td>4,645</td>
<td>645</td>
<td>93,537</td>
</tr>
<tr>
<td>7/1/16</td>
<td>4,000</td>
<td>4,677</td>
<td>677</td>
<td>94,214</td>
</tr>
<tr>
<td>1/1/17</td>
<td>4,000</td>
<td>4,711</td>
<td>711</td>
<td>94,925</td>
</tr>
<tr>
<td>7/1/17</td>
<td>4,000</td>
<td>4,746</td>
<td>746</td>
<td>95,671</td>
</tr>
<tr>
<td>1/1/18</td>
<td>4,000</td>
<td>4,783</td>
<td>783</td>
<td>96,454</td>
</tr>
<tr>
<td>7/1/18</td>
<td>4,000</td>
<td>4,823</td>
<td>823</td>
<td>97,277</td>
</tr>
<tr>
<td>1/1/19</td>
<td>4,000</td>
<td>4,864</td>
<td>864</td>
<td>98,141</td>
</tr>
<tr>
<td>7/1/19</td>
<td>4,000</td>
<td>4,907</td>
<td>907</td>
<td>99,048</td>
</tr>
<tr>
<td>1/1/20</td>
<td>4,000</td>
<td>4,952</td>
<td>952</td>
<td>100,000</td>
</tr>
</tbody>
</table>

**Notes:**

- \( \text{€4,000} = \text{€100,000} \times 0.08 \times 6/12 \)
- \( \text{€4,614} = \text{€92,278} \times 0.10 \times 6/12 \)
- \( \text{€614} = \text{€4,614} - \text{€4,000} \)
- \( \text{€92,892} = \text{€92,278} + \text{€614} \)
## Effective-Interest Method

### Journal entry on date of issue, Jan. 1, 2015.

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td></td>
<td></td>
<td></td>
<td>€ 92,278</td>
</tr>
<tr>
<td>7/1/15</td>
<td>€ 4,000(^a)</td>
<td>€ 4,614(^b)</td>
<td>€ 614(^c)</td>
<td>92,892(^d)</td>
</tr>
<tr>
<td>1/1/16</td>
<td>4,000</td>
<td>4,645</td>
<td>645</td>
<td>93,537</td>
</tr>
</tbody>
</table>

**Effective-Interest Method**

**SCHEDULE OF BOND DISCOUNT AMORTIZATION**

**Effective-Interest Method—Semiannual Interest Payments**

5-Year, 8% Bonds Sold to Yield 10%

**ILLUSTRATION 14-7**

Bond Discount Amortization Schedule
Effective-Interest Method

ILLUSTRATION 14-7
Bond Discount Amortization Schedule

SCHEDULE OF BOND DISCOUNT AMORTIZATION
EFFECTIVE-INTEREST METHOD—SEMIANNUAL INTEREST PAYMENTS
5-YEAR, 8% BONDS SOLD TO YIELD 10%

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/1/15</td>
<td>€ 4,000a</td>
<td>€ 4,614b</td>
<td>€ 614c</td>
<td>€ 92,278d</td>
</tr>
<tr>
<td>1/1/16</td>
<td>4,000</td>
<td>4,645</td>
<td>645</td>
<td>92,892d</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>93,537</td>
</tr>
</tbody>
</table>

Journal entry to record first payment and amortization of the discount on July 1, 2015.

Interest expense  4,614
Bonds payable  614
Cash  4,000
Effective-Interest Method

ILLUSTRATION 14-7
Bond Discount Amortization Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/1/15</td>
<td>€ 4,000a</td>
<td>€ 4,614b</td>
<td>€ 614c</td>
<td>€ 92,278</td>
</tr>
<tr>
<td>1/1/16</td>
<td>4,000</td>
<td>4,645</td>
<td>645</td>
<td>92,892d</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>93,537</td>
</tr>
</tbody>
</table>

Journal entry to record accrued interest and amortization of the discount on Dec. 31, 2015.

Interest expense  
4,645

Interest payable  
4,000

Bonds payable  
645
Bonds Issued at a Premium

**Illustration:** Evermaster Corporation issued €100,000 of 8% term bonds on January 1, 2015, due on January 1, 2016, with interest payable each July 1 and January 1. Investors require an effective-interest rate of 6%. Calculate the bond proceeds.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity value of bonds payable</td>
<td>€100,000</td>
</tr>
<tr>
<td>Present value of €100,000 due in 5 years at 6%, interest payable semiannually (Table 6-2); ( FV(PVF_{10,3%}) )</td>
<td>€74,409</td>
</tr>
<tr>
<td>Present value of €4,000 interest payable semiannually for 5 years at 6% annually (Table 6-4); ( R(PVF-OA_{10,3%}) )</td>
<td>34,121</td>
</tr>
<tr>
<td>Proceeds from sale of bonds</td>
<td>(108,530)</td>
</tr>
<tr>
<td>Premium on bonds payable</td>
<td>€ 8,530</td>
</tr>
</tbody>
</table>

**ILLUSTRATION 14-8**
Computation of Premium on Bonds Payable

\( \text{LO 4} \)
### SCHEDULE OF BOND PREMIUM AMORTIZATION

**Effective-Interest Method—Semiannual Interest Payments**

**5-Year, 8% Bonds Sold to Yield 6%**

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Premium Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td></td>
<td></td>
<td></td>
<td>€108,530</td>
</tr>
<tr>
<td>7/1/15</td>
<td>€4,000(^a)</td>
<td>€3,256(^b)</td>
<td>€744(^c)</td>
<td>107,786(^d)</td>
</tr>
<tr>
<td>1/1/16</td>
<td>4,000</td>
<td>3,234</td>
<td>766</td>
<td>107,020</td>
</tr>
<tr>
<td>7/1/16</td>
<td>4,000</td>
<td>3,211</td>
<td>789</td>
<td>106,231</td>
</tr>
<tr>
<td>1/1/17</td>
<td>4,000</td>
<td>3,187</td>
<td>813</td>
<td>105,418</td>
</tr>
<tr>
<td>7/1/17</td>
<td>4,000</td>
<td>3,162</td>
<td>838</td>
<td>104,580</td>
</tr>
<tr>
<td>1/1/18</td>
<td>4,000</td>
<td>3,137</td>
<td>863</td>
<td>103,717</td>
</tr>
<tr>
<td>7/1/18</td>
<td>4,000</td>
<td>3,112</td>
<td>888</td>
<td>102,829</td>
</tr>
<tr>
<td>1/1/19</td>
<td>4,000</td>
<td>3,085</td>
<td>915</td>
<td>101,914</td>
</tr>
<tr>
<td>7/1/19</td>
<td>4,000</td>
<td>3,057</td>
<td>943</td>
<td>100,971</td>
</tr>
<tr>
<td>1/1/20</td>
<td>4,000</td>
<td>3,029</td>
<td>971</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>€40,000</td>
<td>€31,470</td>
<td>€8,530</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)€4,000 = €100,000 × 0.08 × 6/12

\(^b\)€3,256 = €108,530 × 0.06 × 6/12

\(^c\)€744 = €4,000 − €3,256

\(^d\)€107,786 = €108,530 − €744
Effective-Interest Method

ILLUSTRATION 14-9
Bond Premium Amortization Schedule

SCHEDULE OF BOND PREMIUM AMORTIZATION
EFFECTIVE-INTEREST METHOD—SEMIANNUAL INTEREST PAYMENTS
5-YEAR, 8% BONDS SOLD TO YIELD 6%

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Premium Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td></td>
<td></td>
<td></td>
<td>€108,530</td>
</tr>
<tr>
<td>7/1/15</td>
<td>€ 4,000a</td>
<td>€ 3,256b</td>
<td>€ 744c</td>
<td>107,786d</td>
</tr>
<tr>
<td>1/1/16</td>
<td>4,000</td>
<td>3,234</td>
<td>766</td>
<td>107,020</td>
</tr>
</tbody>
</table>

**Journal entry** on date of issue, Jan. 1, 2015.

Cash 108,530

Bonds payable 108,530
Effective-Interest Method

**ILLUSTRATION 14-9**
Bond Premium Amortization Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Premium Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td>€ 4,000</td>
<td>$3,256</td>
<td>€744</td>
<td>€108,530</td>
</tr>
<tr>
<td>7/1/15</td>
<td>€4,000</td>
<td>$3,234</td>
<td></td>
<td>107,786</td>
</tr>
<tr>
<td>1/1/16</td>
<td></td>
<td></td>
<td></td>
<td>107,020</td>
</tr>
</tbody>
</table>

**Journal entry** to record first payment and amortization of the premium on **July 1, 2015**.

- **Interest expense** 3,256
- **Bonds payable** 744
- **Cash** 4,000
Effective-Interest Method

Accrued Interest

What happens if Evermaster prepares financial statements at the end of February 2015? In this case, the company prorates the premium by the appropriate number of months to arrive at the proper interest expense, as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest accrual (€4,000 × 2/6)</td>
<td>€1,333.33</td>
</tr>
<tr>
<td>Premium amortized (€744 × 2/6)</td>
<td>(248.00)</td>
</tr>
<tr>
<td>Interest expense (Jan.–Feb.)</td>
<td>€1,085.33</td>
</tr>
</tbody>
</table>

ILLUSTRATION 14-10
Computation of Interest Expense
Effective-Interest Method

Accrued Interest

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest accrual ($4,000 \times 2/6)</td>
<td>€1,333.33</td>
</tr>
<tr>
<td>Premium amortized ($744 \times 2/6)</td>
<td>(248.00)</td>
</tr>
<tr>
<td>Interest expense (Jan.–Feb.)</td>
<td>€1,085.33</td>
</tr>
</tbody>
</table>

Evermaster records this accrual as follows.

Interest expense 1,085.33
Bonds payable 248.00
Interest payable 1,333.33
Effective-Interest Method

Bonds Issued between Interest Dates

Bond investors will pay the seller the interest accrued from the last interest payment date to the date of issue.

On the next semiannual interest payment date, bond investors will receive the full six months’ interest payment.
Effective-Interest Method

Bonds Issued at Par

**Illustration:** Assume Evermaster issued its five-year bonds, dated January 1, 2015, on May 1, 2015, at par (€100,000). Evermaster records the issuance of the bonds between interest dates as follows.

\[
(€100,000 \times .08 \times 4/12) = €2,667
\]

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>100,000</td>
</tr>
<tr>
<td>Bonds payable</td>
<td>100,000</td>
</tr>
<tr>
<td>Cash</td>
<td>2,667</td>
</tr>
<tr>
<td>Interest expense</td>
<td>2,667</td>
</tr>
</tbody>
</table>
Effective-Interest Method

Bonds Issued at Par

On **July 1, 2015**, two months after the date of purchase, Evermaster pays the investors six months’ interest, by making the following entry.

\[
\text{Interest expense} \quad 4,000 \\
\text{Cash} \quad 4,000 \\
\]

\[
($100,000 \times 0.08 \times 1/2) = $4,000 \\
\]

<table>
<thead>
<tr>
<th>Date</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/1/15</td>
<td>4,000a</td>
</tr>
<tr>
<td>Balance</td>
<td>1,333</td>
</tr>
<tr>
<td>5/1/15</td>
<td>2,667a</td>
</tr>
</tbody>
</table>

*aAccrued interest received.
*bCash paid.
Effective-Interest Method

Bonds Issued at Discount or Premium

Illustration: Assume that the Evermaster 8% bonds were issued on May 1, 2015, to yield 6%. Thus, the bonds are issued at a premium price of €108,039. Evermaster records the issuance of the bonds between interest dates as follows.

<table>
<thead>
<tr>
<th>Cash</th>
<th>108,039</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds payable</td>
<td>108,039</td>
</tr>
<tr>
<td>Cash</td>
<td>2,667</td>
</tr>
<tr>
<td>Interest expense</td>
<td>2,667</td>
</tr>
</tbody>
</table>
Evermaster then determines interest expense from the date of sale (May 1, 2015), not from the date of the bonds (January 1, 2015).

<table>
<thead>
<tr>
<th>Interest Expense</th>
<th>€108,039</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying value of bonds</td>
<td>€108,039</td>
</tr>
<tr>
<td>Effective-interest rate (6% $\times$ 2/12) $\times$ 1%</td>
<td>€1,080</td>
</tr>
</tbody>
</table>

**ILLUSTRATION 14-12**
Partial Period Interest Amortization
Effective-Interest Method

Bonds Issued at Discount or Premium

The premium amortization of the bonds is also for only two months.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash interest paid on July 1, 2015 (€100,000 × 8% × 6/12)</td>
<td>€4,000</td>
</tr>
<tr>
<td>Less: Cash interest received on May 2, 2015</td>
<td>2,667</td>
</tr>
<tr>
<td>Net cash paid</td>
<td>€1,333</td>
</tr>
<tr>
<td>Bond interest expense (at the effective rate) for two months</td>
<td>(1,080)</td>
</tr>
<tr>
<td>Premium amortization</td>
<td>€ 253</td>
</tr>
</tbody>
</table>

ILLUSTRATION 14-13
Partial Period Interest Amortization
Evermaster therefore makes the following entries on July 1, 2015, to record the interest payment and the premium amortization.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest expense</td>
<td>4,000</td>
</tr>
<tr>
<td>Cash</td>
<td>4,000</td>
</tr>
<tr>
<td>Bonds payable</td>
<td>253</td>
</tr>
<tr>
<td>Interest expense</td>
<td>253</td>
</tr>
</tbody>
</table>
After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. **Explain the accounting for long-term notes payable.**
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the fair value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
LONG-TERM NOTES PAYABLE

Accounting is Similar to Bonds

- A note is valued at the present value of its future interest and principal cash flows.
- Company amortizes any discount or premium over the life of the note.
Notes Issued at Face Value

BE14-9: Coldwell, Inc. issued a €100,000, 4-year, 10% note at face value to Flint Hills Bank on January 1, 2015, and received €100,000 cash. The note requires annual interest payments each December 31. Prepare Coldwell’s journal entries to record (a) the issuance of the note and (b) the December 31 interest payment.

(a) Cash
   Notes payable
   100,000
   100,000

(b) Interest expense
   Cash
   10,000
   10,000
   (€100,000 x 10% = €10,000)
Notes Not Issued at Face Value

Zero-Interest-Bearing Notes

Issuing company records the difference between the face amount and the present value (cash received) as

- a discount and
- amortizes that amount to interest expense over the life of the note.
Illustration: Turtle Cove Company issued the three-year, $10,000, zero-interest-bearing note to Jeremiah Company. The implicit rate that equated the total cash to be paid ($10,000 at maturity) to the present value of the future cash flows ($7,721.80 cash proceeds at date of issuance) was 9 percent.

ILLUSTRATION 14-14
Time Diagram for Zero-Interest Note
**Illustration:** Turtle Cove Company issued the three-year, $10,000, zero-interest-bearing note to Jeremiah Company. The implicit rate that equated the total cash to be paid ($10,000 at maturity) to the present value of the future cash flows ($7,721.80 cash proceeds at date of issuance) was 9 percent.

Turtle Cove records issuance of the note as follows.

<table>
<thead>
<tr>
<th>Cash</th>
<th>7,721.80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes Payable</td>
<td>7,721.80</td>
</tr>
</tbody>
</table>
# Zero-Interest-Bearing Notes

## SCHEDULE OF NOTE DISCOUNT AMORTIZATION

**Effective-Interest Method**

**0% Note Discounted at 9%**

<table>
<thead>
<tr>
<th>Date of Issue</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of year 1</td>
<td>$-0-</td>
<td>$694.96&lt;sup&gt;a&lt;/sup&gt;</td>
<td>$694.96&lt;sup&gt;b&lt;/sup&gt;</td>
<td>8,416.76&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>End of year 2</td>
<td>-0-</td>
<td>757.51</td>
<td>757.51</td>
<td>9,174.27</td>
</tr>
<tr>
<td>End of year 3</td>
<td>-0-</td>
<td>825.73&lt;sup&gt;d&lt;/sup&gt;</td>
<td>825.73</td>
<td>10,000.00</td>
</tr>
<tr>
<td></td>
<td>$-0-</td>
<td>$2,278.20</td>
<td>$2,278.20</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>$7,721.80 \times .09 = $694.96

<sup>b</sup>$694.96 - 0 = $694.96

<sup>c</sup>$7,721.80 + $694.96 = $8,416.76

<sup>d</sup>5¢ adjustment to compensate for rounding.

---

**ILLUSTRATION 14-15**

Schedule of Note Discount Amortization

---

LO 5
### SCHEDULE OF NOTE DISCOUNT AMORTIZATION

**Effective-Interest Method**

<table>
<thead>
<tr>
<th>Date of issue</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of year 1</td>
<td>$-0-</td>
<td>$ 694.96&lt;sup&gt;a&lt;/sup&gt;</td>
<td>$ 694.96&lt;sup&gt;b&lt;/sup&gt;</td>
<td>$7,721.80</td>
</tr>
<tr>
<td>End of year 2</td>
<td>0-</td>
<td>757.51</td>
<td>757.51</td>
<td>8,416.76&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>End of year 3</td>
<td>0-</td>
<td>825.73&lt;sup&gt;d&lt;/sup&gt;</td>
<td>825.73</td>
<td>9,174.27</td>
</tr>
<tr>
<td></td>
<td>$-0-</td>
<td>$2,278.20</td>
<td>$2,278.20</td>
<td>10,000.00</td>
</tr>
</tbody>
</table>

<sup>a</sup>$7,721.80 \times .09 = 694.96

<sup>b</sup>$694.96 - 0 = 694.96

<sup>c</sup>$7,721.80 + 694.96 = 8,416.76

<sup>d</sup>5c adjustment to compensate for rounding.

---

Turtle Cove records interest expense for year 1 as follows.

- **Interest Expense ($7,721.80 \times 9\%)** 694.96
- **Notes Payable** 694.96
Illustration: Marie Co. issued for cash a €10,000, three-year note bearing interest at 10 percent to Morgan Corp. The market rate of interest for a note of similar risk is 12 percent. In this case, because the effective rate of interest (12%) is greater than the stated rate (10%), the present value of the note is less than the face value. That is, the note is exchanged at a discount.

<table>
<thead>
<tr>
<th>Computation of Present Value—Effective Rate Different from Stated Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face value of the note</td>
</tr>
<tr>
<td>Present value of the principal:</td>
</tr>
<tr>
<td>€10,000 ( (PVF_{3,12%}) = 10,000 \times 0.71178 )</td>
</tr>
<tr>
<td>Present value of the interest:</td>
</tr>
<tr>
<td>€1,000 ( (PVF-OA_{3,12%}) = 1,000 \times 2.40183 )</td>
</tr>
<tr>
<td>Present value of the note</td>
</tr>
<tr>
<td>Difference (Discount)</td>
</tr>
</tbody>
</table>
Illustration: Marie Co. issued for cash a €10,000, three-year note bearing interest at 10 percent to Morgan Corp. The market rate of interest for a note of similar risk is 12 percent. In this case, because the effective rate of interest (12%) is greater than the stated rate (10%), the present value of the note is less than the face value. That is, the note is exchanged at a discount.

Marie Co. records the issuance of the note as follows.

<table>
<thead>
<tr>
<th>Cash</th>
<th>9,520</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes Payable</td>
<td>9,520</td>
</tr>
</tbody>
</table>
## Interest-Bearing Notes

### Schedule of Note Discount Amortization

**Effective-Interest Method**

**10% Note Discounted at 12%**

<table>
<thead>
<tr>
<th>Date of Issue</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€9,520</td>
</tr>
<tr>
<td>End of year 1</td>
<td>€1,000(^a)</td>
<td>€1,142(^b)</td>
<td>€142(^c)</td>
<td>9,662(^d)</td>
</tr>
<tr>
<td>End of year 2</td>
<td>1,000</td>
<td>1,159</td>
<td>159</td>
<td>9,821</td>
</tr>
<tr>
<td>End of year 3</td>
<td>1,000</td>
<td>1,179</td>
<td>179</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>€3,000</td>
<td>€3,480</td>
<td>€480</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)€10,000 \times 10\% = €1,000  
\(^b\)€9,520 \times 12\% = €1,142  
\(^c\)€1,142 - €1,000 = €142  
\(^d\)€9,520 + €142 = €9,662

**Illustration 14-16**

Schedule of Note
Discount Amortization

LO 5
Marie Co. records the following entry at the end of year 1.

**Interest Expense** 1,142

**Notes Payable** 142

**Cash** 1,000

---

**ILLUSTRATION 14-16** Schedule of Note Discount Amortization

<table>
<thead>
<tr>
<th>Date of issue</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of year 1</td>
<td>€1,000(^a)</td>
<td>€1,142(^b)</td>
<td>€142(^c)</td>
<td>€9,520 9,662(^d)</td>
</tr>
<tr>
<td>End of year 2</td>
<td>1,000</td>
<td>1,159</td>
<td>159</td>
<td>9,821</td>
</tr>
<tr>
<td>End of year 3</td>
<td>1,000</td>
<td>1,179</td>
<td>179</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>€3,000</td>
<td>€3,480</td>
<td>€480</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)€10,000 \times 10\% = €1,000  
\(^b\)€9,520 \times 12\% = €1,142  
\(^c\)€1,142 − €1,000 = €142  
\(^d\)€9,520 + €142 = €9,662
Notes Issued for Property, Goods, or Services

When exchanging the debt instrument for property, goods, or services in a bargained transaction, the stated interest rate is presumed to be fair unless:

1. No interest rate is stated, or
2. The stated interest rate is unreasonable, or
3. The stated face amount is materially different from the current cash price for the same or similar items or from the current fair value of the debt instrument.
Special Notes Payable Situations

Choice of Interest Rates

If a company cannot determine the fair value of the property, goods, services, or other rights, and if the note has no ready market, the present value of the note must be determined by the company to approximate an applicable interest rate (imputation).

Choice of rate is affected by:

- Prevailing rates for similar instruments.
- Factors such as restrictive covenants, collateral, payment schedule, and the existing prime interest rate.
Special Notes Payable Situations

Illustration: On December 31, 2015, Wunderlich Company issued a promissory note to Brown Interiors Company for architectural services. The note has a face value of £550,000, a due date of December 31, 2020, and bears a stated interest rate of 2 percent, payable at the end of each year. Wunderlich cannot readily determine the fair value of the architectural services, nor is the note readily marketable. On the basis of Wunderlich’s credit rating, the absence of collateral, the prime interest rate at that date, and the prevailing interest on Wunderlich’s other outstanding debt, the company imputes an 8 percent interest rate as appropriate in this circumstance.
Special Notes Payable Situations

ILLUSTRATION 14-18

Time Diagram for Interest-Bearing Note

\[ PV \]

\[ PV-OA \]

\[ i = 8\% \]

\[ \text{£11,000} \]

\[ \text{£11,000} \]

\[ \text{£11,000} \]

\[ \text{£11,000} \]

\[ \text{£11,000} \]

\[ n = 5 \]

\[ \text{£550,000 Principal} \]

Face value of the note

\[ £550,000 \]

Present value of £550,000 due in 5 years at 8% interest payable annually (Table 6-2); \( FV(PVF_{5,8\%}) \); (\( £550,000 \times 0.68058 \))

\[ £374,319 \]

Present value of £11,000 interest payable annually for 5 years at 8%; \( R(PVF-OA_{5,8\%}) \); (\( £11,000 \times 3.99271 \))

\[ 43,920 \]

Present value of the note

\[ (418,239) \]

Discount on notes payable

\[ £131,761 \]

ILLUSTRATION 14-19

Computation of Imputed Fair Value and Note Discount

LO 5
### Special Notes Payable Situations

On December 31, 2015, Wunderlich records issuance of the note in payment for the architectural services as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face value of the note</td>
<td>£550,000</td>
</tr>
<tr>
<td>Present value of £550,000 due in 5 years at 8% interest payable annually</td>
<td>£374,319</td>
</tr>
<tr>
<td>(Table 6-2); $FV(PVF_{5,8%})$; (£550,000 × .68058)</td>
<td></td>
</tr>
<tr>
<td>Present value of £11,000 interest payable annually for 5 years at 8%</td>
<td>43,920</td>
</tr>
<tr>
<td>$R(PVF-OA_{5,8%})$; (£11,000 × 3.99271)</td>
<td></td>
</tr>
<tr>
<td>Present value of the note</td>
<td>(418,239)</td>
</tr>
<tr>
<td>Discount on notes payable</td>
<td>£131,761</td>
</tr>
</tbody>
</table>

**ILLUSTRATION 14-19**
Computation of Imputed Fair Value and Note Discount

On December 31, 2015, Wunderlich records issuance of the note in payment for the architectural services as follows.

- **Building (or Construction in Process)**: 418,239
- **Notes Payable**: 418,239
### SCHEDULE OF NOTE DISCOUNT AMORTIZATION

**Effective-Interest Method**

2% Note Discounted at 8% (Imputed)

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid (2%)</th>
<th>Interest Expense (8%)</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/15</td>
<td></td>
<td></td>
<td></td>
<td>£418,239</td>
</tr>
<tr>
<td>12/31/16</td>
<td>£11,000</td>
<td>£33,459</td>
<td>£22,459</td>
<td>440,698</td>
</tr>
<tr>
<td>12/31/17</td>
<td>11,000</td>
<td>35,256</td>
<td>24,256</td>
<td>464,954</td>
</tr>
<tr>
<td>12/31/18</td>
<td>11,000</td>
<td>37,196</td>
<td>26,196</td>
<td>491,150</td>
</tr>
<tr>
<td>12/31/19</td>
<td>11,000</td>
<td>39,292</td>
<td>28,292</td>
<td>519,442</td>
</tr>
<tr>
<td>12/31/20</td>
<td>11,000</td>
<td>41,558</td>
<td>30,558</td>
<td>550,000</td>
</tr>
</tbody>
</table>

**Notes:**

- a: £550,000 x 2% = £11,000
- b: £418,239 x 8% = £33,459
- c: £33,459 - £11,000 = £22,459
- d: £418,239 + £22,459 = £440,698
- e: £3 adjustment to compensate for rounding.
### Special Notes Payable Situations

**ILLUSTRATION 14-20**
Schedule of Discount Amortization Using Imputed Interest Rate

#### SCHEDULE OF NOTE DISCOUNT AMORTIZATION

**Effective-Interest Method**

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid (2%)</th>
<th>Interest Expense (8%)</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/15</td>
<td></td>
<td></td>
<td></td>
<td>£418,239</td>
</tr>
<tr>
<td>12/31/16</td>
<td>£11,000^a</td>
<td>£33,459^b</td>
<td>£22,459^c</td>
<td>440,698^d</td>
</tr>
<tr>
<td>12/31/17</td>
<td>11,000</td>
<td>35,256</td>
<td>24,256</td>
<td>464,954</td>
</tr>
</tbody>
</table>

- £11,000^a is the cash paid on 12/31/16.
- £33,459^b is the interest expense for the year ended 12/31/16.
- £22,459^c is the discount amortized for the year ended 12/31/16.
- £418,239 is the carrying amount of the note on 12/31/15.
- £440,698^d is the carrying amount of the note on 12/31/16.
- £464,954 is the carrying amount of the note on 12/31/17.

Payment of first year’s interest and amortization of the discount.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Expense</td>
<td>33,459</td>
</tr>
<tr>
<td>Notes Payable</td>
<td>22,459</td>
</tr>
<tr>
<td>Cash</td>
<td>11,000</td>
</tr>
</tbody>
</table>

**LO 5**
Mortgage Notes Payable

A promissory note secured by a document called a mortgage that pledges title to property as security for the loan.

- Common form of long-term notes payable.
- Payable in full at maturity or in installments.
- Fixed-rate mortgage.
- Variable-rate mortgages.
After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Explain the accounting for long-term notes payable.
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the fair value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
SPECIAL ISSUES RELATED TO NON-CURRENT LIABILITIES

Extinguishment of Non-Current Liabilities

1. Extinguishment with cash before maturity,
2. Extinguishment by transferring assets or securities, and
3. Extinguishment with modification of terms.
Extinguishment of Non-Current Liabilities

Extinguishment with Cash before Maturity

- Net carrying amount > Reacquisition price = Gain
- Reacquisition price > Net carrying amount = Loss
- At time of reacquisition, unamortized premium or discount must be amortized up to the reacquisition
Extinguishment with Cash before Maturity

Illustration: Evermaster bonds issued at a discount on January 1, 2015. These bonds are due in five years. The bonds have a par value of €100,000, a coupon rate of 8% paid semiannually, and were sold to yield 10%.

ILLUSTRATION 14-21
Bond Premium Amortization Schedule, Bond Extinguishment

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Discount Amortized</th>
<th>Carrying Amount of Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/15</td>
<td>€ 4,000a</td>
<td>€ 4,614b</td>
<td>€ 614c</td>
<td>€ 92,278</td>
</tr>
<tr>
<td>7/1/15</td>
<td>4,000</td>
<td>4,645</td>
<td>645</td>
<td>92,892d</td>
</tr>
<tr>
<td>1/1/16</td>
<td>4,000</td>
<td>4,677</td>
<td>677</td>
<td>93,537</td>
</tr>
<tr>
<td>7/1/16</td>
<td>4,000</td>
<td>4,711</td>
<td>711</td>
<td>94,214</td>
</tr>
<tr>
<td>1/1/17</td>
<td>4,000</td>
<td>4,746</td>
<td>746</td>
<td>94,925</td>
</tr>
<tr>
<td>7/1/17</td>
<td>4,000</td>
<td>4,746</td>
<td>746</td>
<td>95,671</td>
</tr>
</tbody>
</table>
Two years after the issue date on January 1, 2017, Evermaster calls the entire issue at 101 and cancels it.

Evermaster records the reacquisition and cancellation of the bonds as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reacquisition price ($100,000 \times 1.01)</td>
<td>€101,000</td>
</tr>
<tr>
<td>Carrying amount of bonds redeemed</td>
<td>(94,925)</td>
</tr>
<tr>
<td>Loss on extinguishment</td>
<td>€6,075</td>
</tr>
</tbody>
</table>

Evermaster records the reacquisition and cancellation of the bonds as follows.

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds Payable</td>
<td>94,925</td>
</tr>
<tr>
<td>Loss on Extinguishment of Bonds</td>
<td>6,075</td>
</tr>
<tr>
<td>Cash</td>
<td>101,000</td>
</tr>
</tbody>
</table>
Extinguishment of Non-Current Liabilities

Extinguishment by Exchanging Assets or Securities

- **Creditor** should account for the non-cash assets or equity interest received at their fair value.

- **Debtor** recognizes a gain equal to the excess of the carrying amount of the payable over the fair value of the assets or equity transferred (gain).
Illustration: Hamburg Bank loaned €20,000,000 to Bonn Mortgage Company. Bonn, in turn, invested these monies in residential buildings. However, because of low occupancy rates, it cannot meet its loan obligations. Hamburg Bank agrees to accept from Bonn Mortgage real estate with a fair value of €16,000,000 in full settlement of the €20,000,000 loan obligation. The real estate has a carrying value of €21,000,000 on the books of Bonn Mortgage. Bonn (debtor) records this transaction as follows.

Note Payable (to Hamburg Bank) 20,000,000
Loss on Disposal of Real Estate 5,000,000
Real Estate 21,000,000
Gain on Extinguishment of Debt 4,000,000
Illustration: Now assume that Hamburg Bank agrees to accept from Bonn Mortgage 320,000 ordinary shares (€10 par) that have a fair value of €16,000,000, in full settlement of the €20,000,000 loan obligation. Bonn Mortgage (debtor) records this transaction as follows.

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes Payable (to Hamburg Bank)</td>
<td>20,000,000</td>
</tr>
<tr>
<td>Share Capital—Ordinary</td>
<td>3,200,000</td>
</tr>
<tr>
<td>Share Premium—Ordinary</td>
<td>12,800,000</td>
</tr>
<tr>
<td>Gain on Extinguishment of Debt</td>
<td>4,000,000</td>
</tr>
</tbody>
</table>
Extinguishment with Modification of Terms

_Creditor_ may offer one or a combination of the following modifications:

1. Reduction of the stated interest rate.
2. Extension of the maturity date of the face amount of the debt.
3. Reduction of the face amount of the debt.
4. Reduction or deferral of any accrued interest.
**Illustration:** On December 31, 2015, Morgan National Bank enters into a debt modification agreement with Resorts Development Company. The bank restructures a ¥10,500,000 loan receivable issued at par (interest paid to date) by:

- Reducing the principal obligation from ¥10,500,000 to ¥9,000,000;
- Extending the maturity date from December 31, 2015, to December 31, 2019; and
- Reducing the interest rate from the historical effective rate of 12 percent to 8 percent. Given Resorts Development’s financial distress, its market-based borrowing rate is 15 percent.
Modification of Terms

**IFRS requires** the modification to be accounted for as an extinguishment of the old note and issuance of the new note, measured at fair value.

<table>
<thead>
<tr>
<th>Present value of restructured cash flows:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present value of ¥9,000,000 due in 4 years at 15%, interest payable annually (Table 6-2); $FV(PVF_{4,15%})$; $(¥9,000,000 \times 0.57175)$</td>
</tr>
<tr>
<td>Present value of ¥720,000 interest payable annually for 4 years at 15% (Table 6-4); $R(PVF-OA_{4,15%})$; $(¥720,000 \times 2.85498)$</td>
</tr>
</tbody>
</table>

**Fair value of note**

¥7,201,336

**ILLUSTRATION 14-23**
Fair Value of Restructured Note
The gain on the modification is ¥3,298,664, which is the difference between the prior carrying value (¥10,500,000) and the fair value of the restructured note, as computed in Illustration 14-23 (¥7,201,336). Given this information, Resorts Development makes the following entry to record the modification.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note Payable (old)</td>
<td>10,500,000</td>
</tr>
<tr>
<td>Gain on Extinguishment of Debt</td>
<td>3,298,664</td>
</tr>
<tr>
<td>Note Payable (new)</td>
<td>7,201,336</td>
</tr>
</tbody>
</table>
Modification of Terms

Amortization schedule for the new note.

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid</th>
<th>Interest Expense</th>
<th>Amortization</th>
<th>Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/15</td>
<td>720,000</td>
<td>¥1,080,200</td>
<td>¥360,200</td>
<td>¥7,201,336</td>
</tr>
<tr>
<td>12/31/16</td>
<td>¥720,000</td>
<td>1,134,230</td>
<td>414,230</td>
<td>7,561,536</td>
</tr>
<tr>
<td>12/31/17</td>
<td>720,000</td>
<td>1,196,365</td>
<td>476,365</td>
<td>7,975,767</td>
</tr>
<tr>
<td>12/31/18</td>
<td>720,000</td>
<td>1,267,820</td>
<td>547,868</td>
<td>8,452,132</td>
</tr>
<tr>
<td>12/31/19</td>
<td>720,000</td>
<td></td>
<td></td>
<td>9,000,000</td>
</tr>
</tbody>
</table>

\[\text{a}¥9,000,000 \times 8\%\]
\[\text{b}¥7,201,336 \times 15\%\]
\[\text{c}¥1,080,200 - ¥720,000\]
\[\text{d}¥7,201,336 + ¥360,200\]

ILLUSTRATION 14-24
Schedule of Interest and Amortization after Debt Modification
LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Explain the accounting for long-term notes payable.
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
Fair Value Option

Companies have the option to record fair value in their accounts for most financial assets and liabilities, including bonds and notes payable.

The IASB believes that fair value measurement for financial instruments, including financial liabilities, provides more relevant and understandable information than amortized cost.
Non-current liabilities are recorded at **fair value**, with **unrealized holding gains or losses** reported as part of net income.

**Illustrations:** Edmonds Company has issued €500,000 of 6 percent bonds at face value on May 1, 2015. Edmonds chooses the fair value option for these bonds. At December 31, 2015, the value of the bonds is now €480,000 because interest rates in the market have increased to 8 percent.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds Payable (€500,000 - €480,000)</td>
<td>20,000</td>
</tr>
<tr>
<td>Unrealized Holding Gain or Loss—Income</td>
<td>20,000</td>
</tr>
</tbody>
</table>

LO 7
After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Explain the accounting for long-term notes payable.
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the fair value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
Off-Balance-Sheet Financing

Off-balance-sheet financing is an attempt to borrow monies in such a way to prevent recording the obligations.

Different Forms:

► Non-Consolidated Subsidiary
► Special Purpose Entity (SPE)
► Operating Leases
After studying this chapter, you should be able to:

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Explain the accounting for long-term notes payable.
6. Describe the accounting for the extinguishment of non-current liabilities.
7. Describe the accounting for the fair value option.
8. Explain the reporting of off-balance-sheet financing arrangements.
9. Indicate how to present and analyze non-current liabilities.
Presentation of Non-Current Liabilities

Note disclosures generally indicate the nature of the liabilities, maturity dates, interest rates, call provisions, conversion privileges, restrictions imposed by the creditors, and assets designated or pledged as security.

Fair value of the debt should be disclosed.

Must disclose **future payments** for sinking fund requirements and maturity amounts of long-term debt during each of the next five years.
Analysis of Non-Current Liabilities

One ratio that provides information about debt-paying ability and long-run solvency is:

\[
\text{Debt to Assets} = \frac{\text{Total Liabilities}}{\text{Total Assets}}
\]

The higher the percentage of total liabilities to total assets, the greater the risk that the company may be unable to meet its maturing obligations.
A second ratio that provides information about debt-paying ability and long-run solvency is:

\[
\frac{\text{Income before Income Taxes and Interest Expense}}{\text{Interest Expense}} = \frac{\text{Income before Income Taxes and Interest Expense}}{\text{Interest Earned}}
\]

Indicates the company’s ability to meet interest payments as they come due.
Illustration: Novartis has total liabilities of $54,997 million, total assets of $124,216 million, interest expense of $724 million, income taxes of $1,625 million, and net income of $9,618 million. We compute Novartis’s debt to assets and times interest earned ratios as shown.
LIABILITIES

U.S. GAAP and IFRS have similar definitions for liabilities. In addition, the accounting for current liabilities is essentially the same under both IFRS and U.S. GAAP. However, there are substantial differences in terminology related to noncurrent liabilities as well as some differences in the accounting for various types of long-term debt transactions.
Relevant Facts

Similarities

• U.S. GAAP and IFRS have similar liability definitions. Both also classify liabilities as current and non-current.

• Much of the accounting for bonds and long-term notes is the same under U.S. GAAP and IFRS.

• Both U.S. GAAP and IFRS require the best estimate of a probable loss. In U.S. GAAP, the minimum amount in a range is used. Under IFRS, if a range of estimates is predicted and no amount in the range is more likely than any other amount in the range, the midpoint of the range is used to measure the liability.

• Both U.S. GAAP and IFRS prohibit the recognition of liabilities for future losses.
Relevant Facts

Differences

- Under U.S. GAAP, companies must classify a refinancing as current only if it is completed before the financial statements are issued. IFRS requires that the current portion of long-term debt be classified as current unless an agreement to refinance on a long-term basis is completed before the reporting date.

- U.S. GAAP uses the term contingency in a different way than IFRS. A contingency under U.S. GAAP may be reported as a liability under certain situations. IFRS does not permit a contingency to be recorded as a liability.

- U.S. GAAP uses the term estimated liabilities to discuss various liability items that have some uncertainty related to timing or amount. IFRS generally uses the term provisions.
Relevant Facts

Differences

• U.S. GAAP and IFRS are similar in the treatment of environmental liabilities. However, the recognition criteria for environmental liabilities are more stringent under U.S. GAAP: Environmental liabilities are not recognized unless there is a present legal obligation and the fair value of the obligation can be reasonably estimated.

• U.S. GAAP uses the term troubled debt restructurings and develops recognition rules related to this category. IFRS generally assumes that all restructurings should be considered extinguishments of debt.
Relevant Facts

Differences

• Under U.S. GAAP, companies are permitted to use the straight-line method of amortization for bond discount or premium, provided that the amount recorded is not materially different than that resulting from effective-interest amortization. However, the effective-interest method is preferred and is generally used. Under IFRS, companies must use the effective-interest method.

• Under U.S. GAAP, companies record discounts and premiums in separate accounts (see the About the Numbers section). Under IFRS, companies do not use premium or discount accounts but instead show the bond at its net amount.
Relevant Facts

Differences

• Under U.S. GAAP, bond issue costs are recorded as an asset. Under IFRS, bond issue costs are netted against the carrying amount of the bonds.

• Under U.S. GAAP, losses on onerous contract are generally not recognized unless addressed by industry- or transaction-specific requirements. IFRS requires a liability and related expense or cost be recognized when a contract is onerous.
About The Numbers

Under IFRS, premiums and discounts are netted against the face value of the bonds for recording purposes. Under U.S. GAAP, discounts and premiums are recorded in separate accounts.
On the Horizon

As indicated in Chapter 2, the IASB and FASB are working on a conceptual framework project, part of which will examine the definition of a liability. In addition, the two Boards are attempting to clarify the accounting related to provisions and related contingencies.
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