

Bonds Part III

Bond retirement.

The carrying value of bonds at maturity will always equal their par value.

| | | |
|-----------------|--|--------------------|
| 2005 Dec. 31 | Bonds payable cash | 100,000 100,000 |
| | To record retirement of bonds at maturity | |

Bond retirement before maturity

Companies wish to retire some or all of their bonds prior to maturity. For instance, if interest decline significantly, a company may wish to replace old high-interest paying bonds with new low-interest bonds. Two common ways:

1. Exercise a call option, or
2. Purchase them on the open market.

To illustrate bond retirement before maturity, let's assume a company has issued callable bonds with a par value of \$100,000. The call option requires the issuer to pay a call premium of \$3,000 to bondholders in addition to the par value. Immediately after the June 30, 2002, interest payment the bonds have a carrying value of \$104,500. On July 1, 2002, the issuer calls these bonds and pays \$103,000 to bondholders. The issuer recognizes a \$1,500 gain from the difference between the bonds' carrying value of \$104,500 and the retirement price of \$103,000. The entry to record this bond retirement is:

| | | | |
|--------|---|---------|---------|
| July 1 | Bonds Payable..... | 100,000 | |
| | Premium on Bonds Payable | 4,500 | |
| | Gain on Retirement of Bonds | | 1,500 |
| | Cash | | 103,000 |
| | <i>To record retirement of bonds before maturity.</i> | | |

Bond Retirement by Conversion of Shares

Convertible bonds are those that give bondholders the right to convert their bonds to a specified number of common shares. When conversion occurs, the carrying value of bonds is transferred from long-term liability accounts to contributed capital accounts and no gain or loss is recorded.

To illustrate, on January 1 the \$100,000 par value bonds of Converse, with a carrying value of \$100,000, are converted to 15,000 common shares. The entry to record this conversion is:

| | | | |
|--------|--|---------|---------|
| Jan. 1 | Bonds Payable..... | 100,000 | |
| | Common Shares..... | | 100,000 |
| | <i>To record retirement of bonds by conversion into common shares.</i> | | |

The market prices of the bonds and shares are not part of this entry.

In the event of a bond conversion any related bond discount or premium must also be removed. For example if there had been a \$4,000 balance in Discount on Bonds Payable, it must be credited as shown in the following entry:

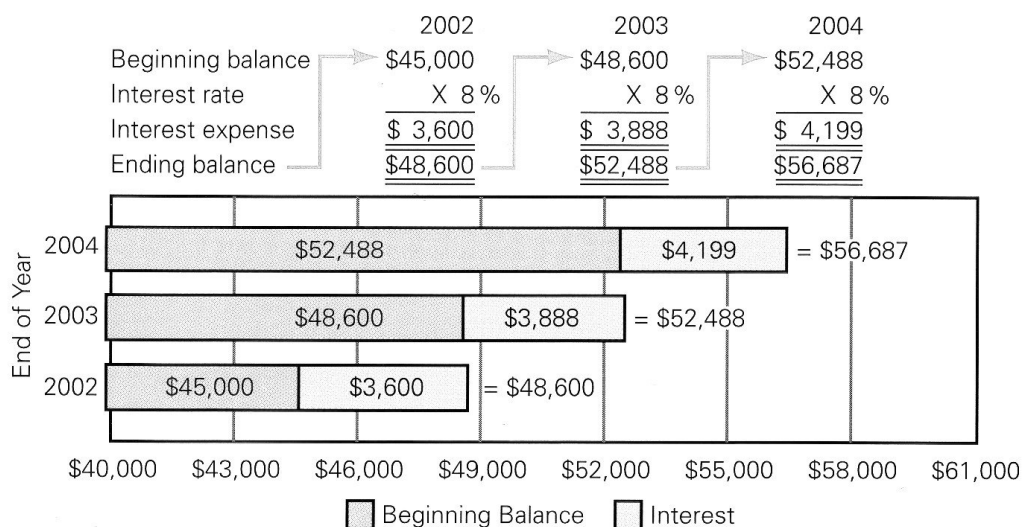
| | | | |
|--------|--|---------|--------|
| Jan. 1 | Bonds Payable..... | 100,000 | |
| | Discount on Bonds Payable | | 4,000 |
| | Common Shares..... | | 96,000 |
| | <i>To record retirement of bonds by conversion into common shares.</i> | | |

Interest-Bearing Notes

Let's assume **Taco Bell** buys service equipment on January 2, 2002, with a fair market value of \$45,000 by issuing an 8%, three-year note with a face value of \$45,000 to the equipment seller. The company records the purchase with this entry:

| | | | |
|--------|--|--------|--------|
| 2002 | | | |
| Jan. 2 | Service Equipment..... | 45,000 | |
| | Notes Payable..... | | 45,000 |
| | <i>Issued a \$45,000, three-year, 8% note payable for equipment.</i> | | |

The company (note issuer) reports annual interest expense equal to the original interest rate times each year's beginning balance of the note over the life of the note. Exhibit 17.18 shows this interest expense computation and allocation.



Interest is computed by multiplying each year's beginning balance by the original 8% market interest rate. Interest is then added to the beginning balance to compute the ending balance. A period's ending balance becomes next period's beginning balance. Because the balance grows by compounding, the amount of interest allocated to each year increases over the life of the note. The final ending balance of \$56,687 equals the original \$45,000 borrowed plus total interest of \$11,687. A note like this one that delays interest payments is more common for lower risk companies who wish to delay cash payments until some later period. It is often backed with assets as collateral.

Installment Notes

An **installment note** is an obligation requiring a series of periodic payments to the lender. Installment notes are common for franchises and other businesses where costs are large and the owner desires to spread these costs over several periods. When an installment note is used to borrow money or pay for assets, the borrower records the note with an entry similar to the one used for a single-payment note. This means the increase in cash or assets is recorded with a debit and the increase in the liability is recorded with a credit to Notes Payable.

To illustrate, let's assume CanBowl, a bowling establishment, borrows \$60,000 from a bank to purchase AMF and Brunswick bowling equipment. CanBowl signs an 8% installment note with the bank requiring six annual payments and records the note's issuance as:

| | | | |
|---------|---|--------|--------|
| 2001 | | | |
| Dec. 31 | Cash | 60,000 | |
| | Notes Payable..... | | 60,000 |
| | <i>Borrowed \$60,000 by signing an 8% installment note.</i> | | |

Alternatively, CanBowl might have issued a note directly to the seller of the bowling equipment. In this case, CanBowl would debit Bowling Equipment instead of Cash.

Payments on an installment note normally include the interest expense accruing to the date of the payment plus a portion of the amount borrowed (the *principal*). Generally, we can identify two types of payment patterns:

1. Accrued interest plus equal principal payments, and
2. Equal payments.

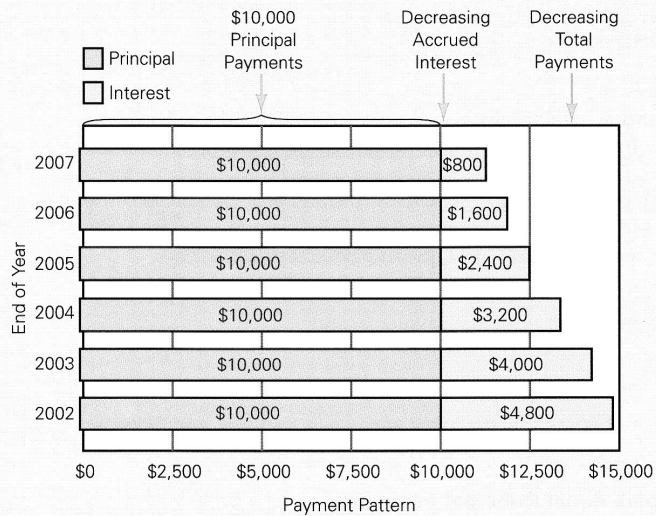
The remainder of this section describes these two patterns and how we account for them.

Accrued interest plus equal principal payments

To illustrate, let's assume the \$60,000, 8% note requiring six payments at the end of each year equal to accrued interest plus \$10,000 of principal.

Installment Note—Accrued Interest plus Equal Principal Payments

| Period Ending | (A) Beginning Balance Prior (E) | (B) Debit Interest Expense 8% × (A) | (C) Debit Notes Payable \$60,000/6 | (D) Credit Cash (B) + (C) | (E) Ending Balance (A) – (C) |
|------------------|--|---|--|------------------------------------|---------------------------------------|
| Dec. 31/02 | \$60,000 | \$4,800 | \$10,000 | \$14,800 | \$50,000 |
| Dec. 31/03 | 50,000 | 4,000 | 10,000 | 14,000 | 40,000 |
| Dec. 31/04 | 40,000 | 3,200 | 10,000 | 13,200 | 30,000 |
| Dec. 31/05 | 30,000 | 2,400 | 10,000 | 12,400 | 20,000 |
| Dec. 31/06 | 20,000 | 1,600 | 10,000 | 11,600 | 10,000 |
| Dec. 31/07 | 10,000 | 800 | 10,000 | 10,800 | -0- |
| | | <u>\$16,800</u> | <u>\$60,000</u> | <u>\$76,800</u> | |



CanBowl (borrower) records the effects of the first two payments with these entries:

| | | | |
|---------|--|--------|--------|
| 2002 | | | |
| Dec. 31 | Interest Expense | 4,800 | |
| | Notes Payable | 10,000 | |
| | Cash | | 14,800 |
| | <i>To record first installment payment.</i> | | |
| 2003 | | | |
| Dec. 31 | Interest Expense | 4,000 | |
| | Notes Payable | 10,000 | |
| | Cash | | 14,000 |
| | <i>To record second installment payment.</i> | | |

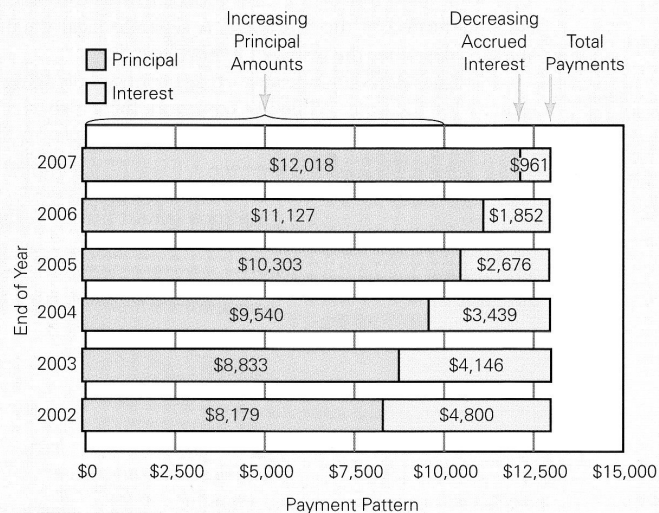
After all six payments are recorded, the balance of the Notes Payable account is zero.

Equal total payments

To make a series of six equal payments of \$12,979

Installment Note—Equal Total Payments

| Period Ending | (A) Beginning Balance Prior (E) | (B) Debit Interest Expense 8% × (A) | (C) Debit Notes Payable (D) – (B) | (D) Credit Cash Computed | (E) Ending Balance (A) – (C) |
|------------------|--|---|---|-----------------------------------|---------------------------------------|
| Dec. 31/02 | \$60,000 | \$4,800 | \$8,179 | \$12,979 | \$51,821 |
| Dec. 31/03 | 51,821 | 4,146 | 8,833 | 12,979 | 42,988 |
| Dec. 31/04 | 42,988 | 3,439 | 9,540 | 12,979 | 33,448 |
| Dec. 31/05 | 33,448 | 2,676 | 10,303 | 12,979 | 23,145 |
| Dec. 31/06 | 23,145 | 1,852 | 11,127 | 12,979 | 12,018 |
| Dec. 31/07 | 12,018 | 961 | 12,018 | 12,979 | -0- |
| | | <u>\$17,874</u> | <u>\$60,000</u> | <u>\$77,874</u> | |



2002

| | | | |
|---------|---|-------|--------|
| Dec. 31 | Interest Expense | 4,800 | |
| | Notes Payable | 8,179 | |
| | Cash | | 12,979 |
| | <i>To record first installment payment.</i> | | |

2003

| | | | |
|---------|--|-------|--------|
| Dec. 31 | Interest Expense | 4,146 | |
| | Notes Payable | 8,833 | |
| | Cash | | 12,979 |
| | <i>To record second installment payment.</i> | | |

Problems

The Staley Tile Company patented and successfully test-marketed a new product. However, to expand its ability to produce and market the product, the company needed to raise \$800,000 of additional financing. On January 1, 2001, the company borrowed the money under these arrangements:

- 1. Staley signed a \$400,000, 10% installment note that will be repaid with five equal annual installments. The payments will be made on December 31 of 2001 through 2005.
- 2. Staley issued five-year bonds with a par value of \$400,000. The bonds have a 12% annual contract rate and pay interest on June 30 and December 31. The annual market interest rate for the bonds was 10% on January 1, 2001.

Required

- 1. For the installment note, (a) compute the size of each payment, (b) prepare an amortization table, and (c) present the entry for the first payment.
- 2. For the bonds, (a) calculate the issue price of the bonds; (b) present the January 1, 2001, entry to record issuing the bonds; (c) prepare an amortization table using the effective interest method; (d) present the June 30, 2001, entry to record the first payment of interest; and (e) present an entry to record retiring the bonds at the call price of \$416,000 on January 1, 2003.