NINJA BOOK

Financial Accounting & Reporting

Bonds

Copyright & Disclaimer

Bonds

Investment in Bonds

Overview

Bonds are contractual agreements wherein the issuer (borrower) promises to pay the purchaser (lender) a principal amount at a designated future date. Besides, the issuer makes periodic interest payments based on the face amount of the bond and the stated rate of interest.

Acquisition

The initial recording will be at an amount equal to the purchase price of the bond plus other direct costs of acquisition (e.g., broker's fees). The market price of the bond is equal to the present value of the bond's interest and principal payments, discounted using the market interest rate for that type of bond. If bonds are bought between interest dates, the purchaser will have to pay an additional amount for the interest accrued on the bond since the last interest date (or the bond date, if before the first interest date). This additional amount is **not** part of the cost of the bond investment, but must be recorded separately as purchased interest (i.e., interest receivable).

Investment in Bonds	XXX	
Interest Receivable	XXX	
Cash		XXX

Example - 1 Acquisition of Bond and Interest Payment

X buys at par on September 1 a 10%, $1,000 bond issued on June 1 of the same year. Interest dates are June 1 and December 1.

Journal entries to record the purchase of the bonds and interest proceeds for the year:

Investment in Bonds	1,000	
Interest Receivable (10% × $1,000 × 3 months/12 months)	25	
Cash		1,025
To record the purchase of bonds on September 1.		
Cash (10% × $1,000 × 6/12)	50	
Interest Receivable		25
Interest Income		25
To record receipt of the interest proceeds on December 1.		

Premium or Discount

A premium or discount on bonds arises when the stated interest rate of the bonds is higher or lower, respectively, than the current market interest rate for similar securities. Bond premium or discount, generally, is not separately recorded by the investor (i.e., the bond investment is recorded at a single net amount).

- **Amortization** Premiums or discounts on bonds held long-term must be amortized from date of acquisition to maturity date and the interest method should be used to amortize these differences. Other methods of amortization (straight-line), may be used if the effects are not material.

- **Effect** The premium amortization decreases both the bond investment and investment income accounts, while the discount amortization increases both these accounts.

Example - 2 Bonds Acquired at a Discount

On June 30, year 1, ABC Corp. purchased 100 new bonds issued by XYZ Inc., with a total face amount of $100,000 and a 10% stated interest rate. The bonds mature in ten years and pay interest semiannually, on June 30 and December 31 (20 semiannual payments). The effective yield for similar securities is 12% annually and is reflected in the $88,530 purchase price paid by ABC Corp.

Determination of the appropriate purchase price of $88,530 for the $100,000 face amount of bonds by using the appropriate present value (PV) tables in Appendix D:

Maturity (face) amount to be received	$ 100,000	
PV factor for a single amount (6%, 20 periods)—Table 2	× 0.311805	
Present value of the maturity amount		$31,180.50
Semiannual interest payment to be received ($100,000 × 10% × 6/12)	5,000	
PV factor for an ordinary annuity (6%, 20 periods)—Table 4	× 11.469921	
Present value of future interest payments		57,349.60
Present value of the bonds		$88,530.10

Journal entry to record the acquisition of the bonds:

Bond Investment	88,530	
Cash		88,530

Example - 3 Interest Income and Discount Amortization

Referring to the facts of Example 2, following are ABC Corporation's journal entries to record interest income and discount amortization for the year ending December 31, year 1, assuming (1) straight-line and (2) effective interest methods of discount amortization:

(1)	*Straight-Line Method:*		
	Cash ($100,000 × 0.05)	5,000	
	Bond Investment [($100,000 – $88,530) / 20]	574*	
	Interest Income		5,574
(2)	*Effective Interest Method:*		
	Cash ($100,000 × 0.05)	5,000	
	Bond Investment (balancing amount)	312*	
	Interest Income ($88,530 × .06)		5,312

* **NOTE:** The total amortization of the bond investment discount will be the same over the 10-year life of the bonds under either the straight-line or the interest method. As noted earlier, the amortization of the bond investment discount increases the bond *Investment* and *Interest Income* accounts. The amortization of a bond investment premium would decrease these accounts.

Exhibit 1 - Bond Premiums and Discounts

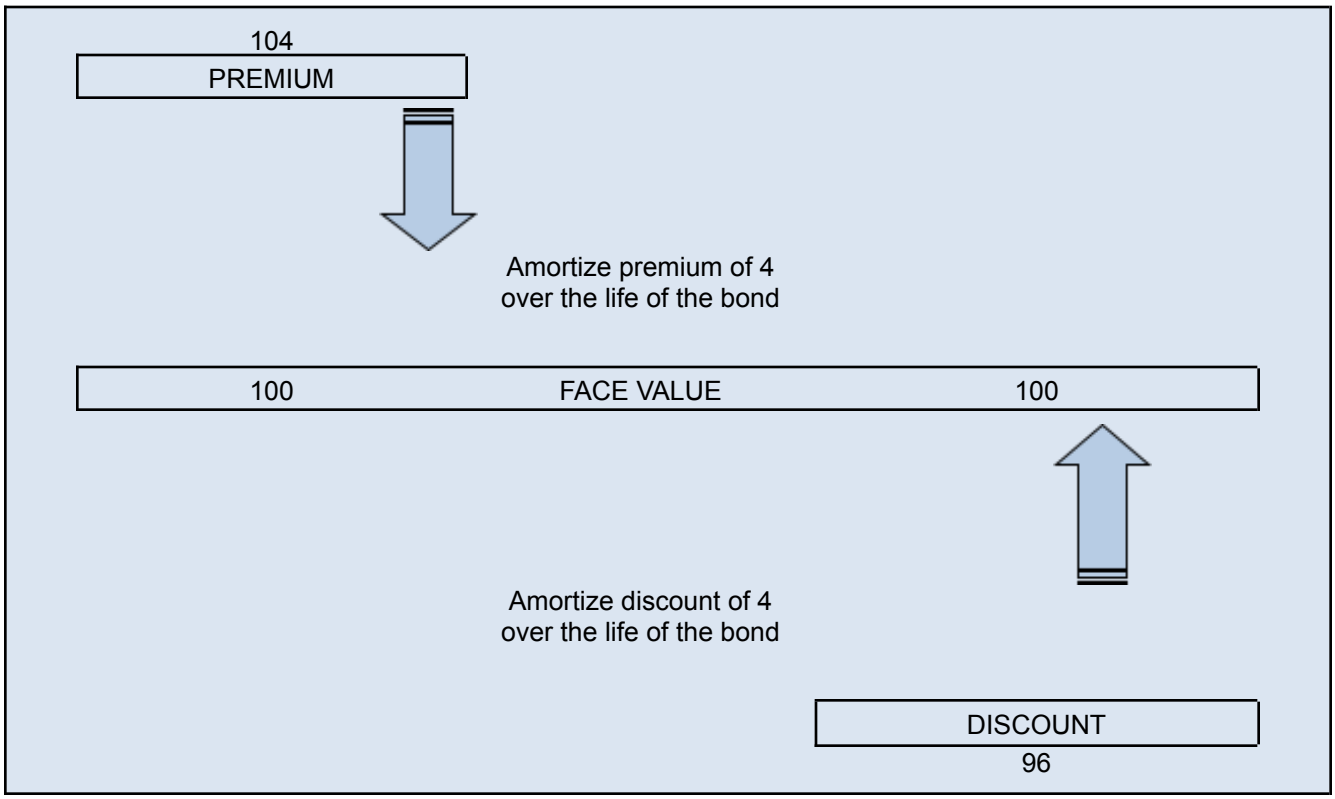

Exhibit 2 - Effective Interest Method

Bond issued at	Effective interest rate	×	Carrying value	=	Amount of interest income/expense
Discount	Constant		Increasing		Increasing
Premium	Constant		Decreasing		Decreasing

Interest Accrual

The bond interest payment date and the investor's year-end may not coincide. In this case, the investor must accrue the interest income earned through year-end, including the required amortization of premium or discount.

Example - 4 Different Year-End and Payment Dates

Referring to the facts of Example 2 again, except that ABC Corporation's year-end is March 31. Following are ABC Corporation's journal entries to record interest income and discount amortization for the year ending March 31, year 2, assuming (1) straight-line and (2) effective interest methods of discount amortization:

(1)	*Straight-Line Method:*		
	Accrued Interest Receivable ($100,000 × 0.05 × 3/6)	2,500	
	Bond Investment ($574 × 3/6)*	287	
	Interest Income		2,787
(2)	*Interest Method:*		
	Accrued Interest Receivable	2,500	
	Bond Investment (balancing amount)	165	
	Interest Income [($88,530 + $312) × 0.06 × 3/6]		2,665

* On March 31, year 2, ABC records interest income for 3 months of the six-month payment. The 10% rate is an annual rate.

Sale of Bond Investments

The sale of bonds held for investment results in a gain or loss equal to the difference between the carrying amount of the bonds and the proceeds received on their disposal.

- **Carrying Amount** In determining the carrying amount of the bonds, adjustment must be made for premium or discount amortization to date of sale.
- **Bonds Sold Between Interest Dates** If the bonds are sold between interest dates, part of the proceeds must be assigned to the interest accrued since the last interest date.

Example - 5 Sale of Bond Investment

Refer to the facts of Example 2. On August 31, year 5, ABC sold the 100 bonds to LMN Inc. for $92,000, which included interest accrued on the bonds. ABC amortized the original discount on the bonds under the straight-line method.

Gain (or loss) to be recognized by ABC on the sale of the bonds:

Proceeds received	$ 92,000
Less: Amount attributable to accrued interest, $100,000 × 0.05 × 2/6	(1,667)
Sale price of bonds	90,333
Carrying amount*	93,313
Gain (loss) on sale of bonds	$ (2,980)

Computation:

* Original purchase price, June 30, year 1	$88,530
Plus, discount amortization:	
Through June 30, year 5 ($574 × 8)	4,592
July 1 to August 31, year 5 ($574 × 2/6)	191
Carrying amount of the bonds	$93,313

Bonds Payable

Overview

Bonds payable represent a contractual obligation to make periodic interest payments on the amount borrowed and to repay the principal upon maturity. Therefore, when a company sells a bond issue it is in effect selling two cash flows.

- **Principal** The receipt of the bond principal at its maturity.
- **Interest** The receipt of the periodic interest payments. The bonds' stated interest rate and face amount determine the amount of periodic interest payments.

Disclosures

The combined aggregate amount of maturities and sinking fund requirements for all long-term borrowings must be disclosed for each of the five years following the date of the latest balance sheet presented.

Bond Classification

- **Based on Maturity**
  - **Term Bonds:** Bonds maturing at a specified date with entire principal maturing on a single date at the end of the lease term.
  - **Serial Bonds:** Bonds providing for repayment of principal in a series of installments.

- **Based on Security**
  - **Secured Bonds:** Bonds secured by collateral.
  - **Debenture Bonds** Unsecured bonds; they are not supported by a lien or mortgage on specific assets
- **Miscellaneous**
  - **Callable Bonds:** Bonds that may be retired at the issuer's option. Issuer has the right to redeem (call) before maturity date.
  - **Convertible Bonds:** Bonds that may be converted to stock at the bondholder's option.
    - ✔ **With non-detachable warrants:** The Convertible bond itself is converted to stock by bonds being surrendered at conversion.
    - ✔ **With detachable warrants:** Bonds are not surrendered upon conversion, only the warrants plus any cash representing the exercise price of the warrants are exchanged for stocks. Warrants can also be bought and sold separately from bonds.
  - **Zero Coupon Bonds:** Bonds that do not have any stated rate of interest. These are sold at discount and redeemable at face value on maturity.

Interest rates

- **Stated / contract / face / coupon / nominal rate** - Rate of interest printed on the face of the bond. It represents interest payable by the borrower
- **Market / effective / yield / yield-to-maturity / real rate** - Prevailing market rate of interest for the bond
- **Stated rate vs. Market rate:**
  - Stated rate = Market rate → Bonds will sell at face value
  - Stated rate < Market rate → Bonds will sell at a discount
  - Stated rate > Market rate → Bonds will sell at a premium

Bond Issuance

When bonds are issued, only the face amount of the bonds is recorded in the *Bonds Payable* account. The bond discount or premium, if any, is recorded in a separate account and reported in the balance sheet as a direct deduction from or addition to the face amount of the bond. Recognized debt liability costs are presented in the balance sheet as a direct deduction from the amount of the debt liability, consistent with debt discounts.

Journal Entry:

Cash	XXX	
Bond Issue Costs (BIC)	XXX	
Discount on Bond Issuance	XXX	
Premium on Bond Issuance		XXX
Bonds Payable		XXX
Accrued Interest		XXX

Example - 6 Bond Issuance

On January 1, year 1, Maple Company issued five-year bonds with a face amount of $200,000 and a stated interest rate of 8%, payable semiannually on June 30 and December 31. The bonds were priced to yield 6%. The present value factor for the present value of $1 for 10 periods at 3% is 0.74409; the factor for the present value of an ordinary annuity of $1 for 10 periods at 3% is 8.53020.

Total issue price of the bond:

Present value of principal payment [$200,000 × 0.74409 (PV of $1 for 10 periods at 3%)]	$ 148,818
Present value of periodic interest payments [($200,000 × 8% / 2) × 8.53020]	68,242
Amount received from the issuance of the bonds	$ 217,060

The stated rate of interest (8%) is above the market rate (6%). Therefore, these bonds were sold at a premium.

Journal entry to record the bond issuance:

Cash	217,060	
Bonds Payable		200,000
Bond Premium (difference)		17,060

Bond Selling Price

To estimate the proceeds to be received from the issuance of bonds payable (ignoring bond issue costs), the present values of the bond principal and interest payments must be determined. The prevailing market (yield) rate is used to discount the cash flows to arrive at their present value.

- **Premium** A bond will sell at a **premium** (more than par) when the stated interest rate is *greater* than the market rate for similar debt.
- **Discount** A bond will sell at a **discount** (less than par) when the stated interest rate is *less* than the market rate.
- **Par** A bond will sell at **par** when the stated interest rate *equals* the market rate.

Bond Issue Costs

Bond Issue Costs include legal fees, accounting fees, underwriting commissions, registration, printing and engraving, and other such costs incurred in preparing and selling a bond issue. FASB issued Accounting Standards Update 2015-03 requiring BIC to deducted from CV of bonds and amortized using effective interest method - i.e., BIC are treated similar to discount/premium & reported as an adjustment to Bond Payable liability.

The Board released the new guidance as part of its simplification initiative.

Bond Retirement

To estimate the proceeds to be received from the issuance of bonds payable (ignoring bond issue costs), the present values of the bond principal and interest payments must be determined. The prevailing market (yield) rate is used to discount the cash flows to arrive at their present value.

- **Debt Extinguishment** A debtor considers debt to be extinguished for financial reporting purposes in the following situations:
    - Once the debtor pays the creditor, he is relieved of the debt, including the debtor's reacquisition of its outstanding debt securities through cancellation or holding as treasury bonds.
    - The debtor legally is released from being the primary obligor under the debt, either judicially or by the creditor.
- **Extinguishment vs. Refunding** Extinguishment includes the reacquisition of debt securities regardless of whether the securities are canceled or held as so-called treasury bonds. Refunding refers to achieving the reacquisition by the use of proceeds from issuing other securities.
- **Principal and Related Amounts** When all or part of a bond issue is retired before maturity, it is necessary to write off both the principal and the pro-rata portion of the unamortized premium or discount on the retired bonds. If bond issue costs were incurred and recorded as an asset (i.e., as a deferred charge), it is also necessary to write off a pro-rata portion of the bond issue costs (when a bond issue is retired before maturity). The amount of such write-off increases any loss or reduces any gain recognized on the retirement.

Journal Entry for Bond Retirement:

Bonds Payable (Face Value)	XXX		
Interest Payable (Accrued Interest)	XXX		
Premium (unamortized)	XXX		
Loss (plug)	XXX		
Cash paid to retire		XXX	
Bond Issue Costs (unamortized)		XXX	
Discount (unamortized)		XXX	
Gain (plug)		XXX	

Example - 7 Bond Retirement

On January 1, year 1, Ben Corporation issued $600,000 of 5% ten-year bonds at 103. Ben records amortization using the straight-line method (i.e., the amount is considered immaterial). On December 31, year 5, when the fair value of the bonds was 97, Ben repurchased $300,000 of the bonds in the open market at 97. Ben has an effective income tax rate of 30%. Ben has recorded interest and amortization for year 5. Ben should record this retirement as follows:

Bonds Payable ($600,000 × 0.50)	300,000	
Bond Premium ($9,000 × 0.50)	4,500	
Taxes Payable ($13,500 × 0.30)		4,050*
Cash ($300,000 × 0.97)		291,000
Gain on Bond Retirement		9,450*

*Computations:

Original carrying amount ($600,000 × 103%)		$ 618,000
Premium to be amortized ($618,000 – $600,000)	$ 18,000	
Amortization [($18,000 / 10) × 5 yrs.]	9,000	9,000
Carrying amount of bonds, 12/31, year 5		609,000
Portion of bonds retired		× 50%
Carrying amount of bonds retired		304,500
Purchase price ($300,000 × 97%)		291,000
Gain on bond retirement, before income taxes		$ 13,500

Premium and Discount Amortization

Straight-Line Method

Straight-line amortization calls for the amortization of an equal amount of premium or discount each period over the life of the bonds. The straight-line method is acceptable only when the premium or discount is immaterial, because it fails to determine the periodic interest expense in terms of the effective rate of interest.

- Amortization = $\frac{\text{Premium or discount}}{\text{\# of periods bond is outstanding}}$

- Interest expense = (Face value * Stated interest rate) + Discount amortization - Premium amortization

- **Interest value is constant**

Example - 8 Straight-Line Amortization

To amortize the premium in Example 6 using the straight-line method, divide the premium by the number of interest periods: $17,060 / 10 = $1,706.

Effective Interest Method

The effective interest method of amortization calls for recognizing interest expense at the effective interest rate at which the bonds were sold. Thus, this interest method overcomes the criticism of the straight-line method because it offers a more accurate measurement of interest expense. Use of the effective interest method results in a constant rate of interest when applied to the carrying amount of the bonds at the beginning of the period. As with long-term notes payable, other amortization methods may be used when the results do not differ materially from those obtained with the effective interest method.

- Interest paid = Face value * Stated interest rate

- Effective Interest (expensed on the I/S) = Carrying value * Market interest rate

- Amortization of premium/discount is the difference between effective interest rate and actual interest rate
  - Amortization of premium = Interest paid - Effective interest

  - Amortization of discount = Effective interest - Interest paid

- Since **interest rate is constant** every period, also called Constant yield method

Example - 9 Effective Interest Method Amortization

To amortize the premium in Example 6 using the effective interest method, multiply the carrying amount of the bond issue ($217,060) by the effective yield (3%). This equals interest expense for the period ($6,512). The difference between the cash interest payment and the interest expense equals the amount of premium amortization for the period ($8,000 – $6,512 = $1,488). This procedure is followed each period until the maturity date when the premium (or discount) will be fully amortized.

Example - 10 Interest Payments

Journal entries to record the first four interest payments for the bonds illustrated in Example 6, rounding amounts to the nearest dollar:

6/30, year 1:	Interest Expense [($200,000 + 17,060) × 0.03]	6,512	
	Bond Premium (to balance)	1,488	
	Cash ($200,000 × 0.04)		8,000
12/31, year 1:	Interest Expense [($200,000 + 15,572*) × 0.03]	6,467	
	Bond Premium (to balance)	1,533	
	Cash ($200,000 × 0.04)		8,000
6/30, year 2:	Interest Expense [($200,000 + 14,039*) × 0.03]	6,421	
	Bond Premium (to balance)	1,579	
	Cash ($200,000 × 0.04)		8,000
12/31, year 2:	Interest Expense [($200,000 + 12,460*) × 0.03]	6,374	
	Bond Premium (to balance)	1,626	
	Cash ($200,000 × 0.04)		8,000

* 12/31, year 1: $17,060 – $1,488 = $15,572; 6/30/X2, $15,572 – $1,533; 12/31/X2, $14,039 – $1,579

Exhibit 3 - Bond Premium Amortization Table

(1) Period	(2) Cash interest payments	(3) 3% × Prior (6) interest expense	(4) (2) – (3) Premium amortization	(5) Prior (5) – (4) unamortized premium	(6) $200,000 + (5) Carrying amount
0	—	—	—	$17,060.00	$217,060.00
1	$8,000	$6,511.80	$1,488.20	15,571.80	215,571.80
2	8,000	6,467.15	1,532.85	14,038.95	214,038.95
3	8,000	6,421.17	1,578.83	12,460.12	212,460.12
4	8,000	6,373.80	1,626.20	10,833.92	210,833.92
5	8,000	6,325.02	1,674.98	9,158.94	209,158.94
6	8,000	6,274.77	1,725.23	7,433.71	207,433.71
7	8,000	6,223.01	1,776.99	5,656.72	205,656.72
8	8,000	6,169.70	1,830.30	3,826.42	203,826.42
9	8,000	6,114.79	1,885.21	1,941.21	201,941.21
10	8,000	6,058.79*	1,941.21	0	200,000.00

* $0.55 difference due to rounding

Application - 1

On January 2 of the current year, West Co. issued 9% bonds in the amount of $500,000, which mature in ten years. The bonds were issued for $469,500 to yield 10%. Interest is payable annually on December 31. West uses the effective interest method of amortizing bond discount. In its June 30 current year balance sheet, what amount should West report as bonds payable?

a. $469,500
b. $470,475
c. $471,025
d. $500,000

(b) $469,500 + $975 = $470,475

Bonds payable carrying amount, 1/2	$ 469,500	
Effective interest rate (10% × 6/12)	× 5%	
Interest expense, 1/2 - 6/30	23,475	
Interest payment [$500,000 × (9% × 6/12)]	(22,500)	
Amortization of discount, 1/2 - 6/30	$	975

Amortization Effects

Amortization of a bond premium decreases interest expense and the carrying amount of the bond for the issuer, while the amortization of a bond discount increases the issuer's interest expense and the carrying amount of the bond.

	Effective Interest Rate Method		Straight Line Method (non-GAAP)
	Amortization of Discount	**Amortization of Premium**	**Amortization of Premium / Discount**
Carrying amount	Increases each period (but remains lower than SLM)	Decreases each period (but remains higher than SLM)	Amortization of Premium decreases each period, Amortization of Discount - increases each period
Interest expense	Increases each period with increase in CV	Decreases each period with decrease in CV	Constant each period
Amount of Amortization	Increases each period	Increases each period	Constant each period (straight line)

Interest and Year-End Dates Differ

An adjusting entry is required when interest dates do not coincide with the end of the accounting period, to record accrued interest expense and bond premium or discount amortization.

Interest	XXX	
Premium amortization pro-rata (if any)	XXX	
Interest payable		XXX
Discount amortization pro-rata (if any)		XXX

Example - 11 Interest and Year-End Dates Differ

In Example 6, assume the end of the accounting period comes 3 months after the bonds are issued.

Journal entry required at 3/31, year 1:

Interest Expense ($6,512 × 3/6)	3,256	
Bond Premium ($1,488 × 3/6)	744	
Accrued Interest Payable ($8,000 × 3/6)		4,000

Issuance Between Interest Dates

Bonds payable are often sold between interest dates. If bond issue costs or a bond premium or discount is involved, it must be amortized over the period the bonds are outstanding.

Cash	XXX	
Bonds Payable		XXX
Accrued Interest payable		XXX

Example - 12 Issuance Between Interest Dates

On March 1 of the current year, Trisha Company issued 12% ten-year bonds with a face amount of $1,000. The bonds are dated January 1 of this year, and interest is payable semiannually on January 1 and July 1. The bonds were sold at par and accrued interest.

Journal entry to record the bond issuance:

Cash	1,020	
Bonds Payable (face amount)		1,000
Accrued Interest Payable ($1,000 × 0.12 × 2/12)		20

Bonds with Additional Features

Serial Bonds

A set of bonds issued at the same time but having different maturity dates. These are also called installment bonds because they provide a series of installments for repayment of principal.

- **Present Values** To determine the selling price of serial bonds, compute the present value of the principal and interest payments for each series separately, then total the present value of each series.
- **Declining Principal** The amortization of bond premium or discount on serial bonds requires the recognition of a declining debt principal. Successive bond years cannot be charged with equal amounts of premium or discount because of a shrinking debt and successively smaller interest payments.
- **Amortization of Premium/Discount** Bond premium or discount, if material, should be amortized using the effective interest method.

Bonds with Detachable Stock Warrants

When bonds are issued with detachable stock warrants, allocation of the proceeds between the warrants and the debt security based on relative fair values is required. If the FV of one security is not determinable, the proceeds are assigned based on the FV of the other security. The rationale behind this allocation is that, even if the warrants are exercised, the debt will still remain. There are two separate elements, the debt and the warrants. The warrants are accounted for as paid-in capital.

Example - 13 Detachable Stock Warrants

On November 1, year 1, two hundred $1,000, 8% bonds due October 31, year 5, were sold at 103 with one detachable stock purchase warrant attached to each bond. The fair value of the bonds without the stock warrants is 98. The fair value of the warrants has not been determined. Each warrant entitles the holder to purchase ten shares of common stock (par $10) at $30 per share.

Borrower			Investor (net)		
Cash	206,000		Bond Investment	196,000	
Bond Discount	4,000		Stock Warrants	10,000	
Bond Payable		200,000	Cash		206,000
APIC-Stock Warrants		10,000			

Computations:

Cash proceeds [(200 × $1,000) × 103%]	$ 206,000
Proceeds allocated to bonds (200 × $1,000 × 98%)	196,000
Proceeds allocated to warrants (remainder)	$ 10,000
Bond discount ($200,000 – $196,000)	$ 4,000

If 100 of the 200 stock purchase warrants are exercised:

Borrower			Investor (net)		
Cash (100 × 10 × $30)	30,000		Inv. in Common Stock (1,000 × $35)	35,000	
APIC-Stock Warrants ($10,000 × 100/200)	5,000		Stock Warrants ($10,000 × 100/200)		5,000
Common Stock (1,000 × $10 PV)		10,000	Cash (100 × 10 × $30)		30,000
APIC-Common St. (to bal.)		25,000			

Convertible Bonds

Convertible bonds provide the bondholder the option of converting the bond to capital stock, typically common stock. Convertible debt securities are those debt securities which are convertible into common stock of the issuer or an affiliated company at a specified price at the option of the holder and which are sold at a price or have a value at issuance not significantly in excess of the face amount. In most cases such securities also are callable at the option of the issuer and are subordinated to nonconvertible debt.

- **Terms** The terms of convertible debt securities generally include the following:
  - An interest rate which is lower than the issuer could establish for nonconvertible debt.
  - An initial conversion price which is greater than the market value of the common stock at time of issuance.
  - A conversion price which does not decrease except pursuant to anti-dilution provisions.
- **General** No proceeds from the debt issue are to be assigned to the conversion feature (even though the convertible bonds may sell for substantially more than similar nonconvertible bonds). The reason for no allocation to equity is that the debt cannot be separated from the conversion feature, as would be the case with detachable stock warrants.

- **Book Value Method** The conversion of the bonds into common stock is generally recorded by crediting the paid-in capital accounts for the carrying amount of the debt at the date of the conversion; thus, no gain or loss is recognized upon conversion. Costs associated with the conversion are **not** recognized as an expense. The paid-in capital accounts are credited for the carrying amount of the debt converted, **less** any costs associated with the conversion.

- **Market Value Method** Alternately, the market value method recognizes a gain or loss on retirement equal to the difference between the carrying amount of the debt at the date of the conversion and the fair value of the shares issued upon conversion.

Book value method (GAAP)	**Market value method (non-GAAP)**
Value at book value of the bonds	Value at market price of the stocks or bonds, whichever is more reliable
No gain or loss balance is plugged to Additional paid-in capital	Plug the gain or loss on redemption
Bonds Payable XXX Premium XXX Bond Issue Costs XXX Common Stock (par) XXX **APIC (plug)** XXX	Bonds Payable XXX Premium XXX **Loss (plug)** XXX Bond Issue Costs XXX Common Stock (par) XXX Addl. Paid-in Capital XXX **Gain (plug)** XXX

Example - 14 Bond Conversion

Bonds with a face amount of $10,000 and a carrying amount of $10,400 are converted into 100 shares of $50 par common stock with $90 fair value.

Journal entries recording conversion of the bonds in the books of the issuer under (a) the book value method, and (b) the market value method:

(a)	*Book Value Method:*		
	Bonds Payable	10,000	
	Bond Premium	400	
	Common Stock (100 × $50 PV)		5,000
	Add'l. Paid-In Capital (to balance)		5,400
(b)	*Market Value Method:*		
	Bonds Payable	10,000	
	Bond Premium	400	
	Common Stock (100 × $50 PV)		5,000
	Add'l. Paid-In Capital [100 × ($90 FV – $50 PV)]		4,000
	Gain on Conversion ($10,400 – $9,000)		1,400

- **Induced Conversions** Generally a gain or loss is required to be recognized on the *retirement* of debt, including certain convertible debt. However, this does not apply to debt that is *converted* to equity securities of the debtor pursuant to conversion privileges provided in the terms of the debt at issuance. The conversion of convertible debt securities to stock may or may not result in gain recognition, depending on whether the book value or the market value method is used. (Note: the same method must be consistently applied.)

Bond Journal Entries

Premiums and Discounts

Example - 15 Straight-Line Premium Amortization

On January 1, year 1, a $1,000 face value, two-year bond, with a 10% coupon rate of interest is sold for 104. The effective yield is 7.8%. Interest is paid semi-annually on June 30 and December 31.

Journal entries using the straight-line method to amortize the premium:

Borrower			Investor		
January 1, year 1					
Cash	1,040		Invest. in Bond	1,040	
Bond Payable		1,000	Cash		1,040
Premium		40			
June 30, year 1					
Interest Expense	40		Cash	50	
Premium	10		Invest. in Bond		10
Cash		50	Interest Income		40
Same journal entries for next 3 periods.			Same journal entries for next 3 periods.		
December 31, year 2					
Bond Payable	1,000		Cash	1,000	
Cash		1,000	Invest. in Bond		1,000

Example - 16 Effective Interest Method of Premium Amortization

Same as Example 15, except using the effective interest method to amortize the premium:

Borrower			Investor		
January 1, year 1					
Cash	1,040				
Bond Payable		1,000	Invest. in Bond	1,040	
Premium		40	Cash		1,040
June 30, year 1					
Interest Expense			Cash	50	
[($1,000 + $40) × 3.9%]	41		Invest. in Bond		9
Premium	9		Interest Income		41
Cash		50			
December 31, year 1					
Interest Expense			Cash	50	
[($1,000 + 30.56) × 3.9%]	40		Invest. in Bond		10
Premium	10		Interest Income		40
Cash		50			
June 30, year 2					
Interest Expense			Cash	50	
[(1,000 + 20.75) × 3.9%]	40		Invest. in Bond		10
Premium	10		Interest Income		40
Cash		50			
December 31, year 2					
Interest Expense			Cash	50	
[(1,000 + 10.56) × 3.9%]	39		Invest. in Bond		11
Premium	11		Interest Income		39
Cash		50			
Bond Payable	1,000		Cash	1,000	
Cash		1,000	Invest. in Bond		1,000

Example - 17 Straight-Line Discount Amortization

Same as Example 15, except that the bond is sold for 96 and the effective interest rate is 12.3%.

Borrower			Investor		
January 1, year 1					
Cash	960		Invest. in Bond	960	
Discount	40		Cash		960
Bond Payable		1,000			
June 30, year 1					
Interest Expense	60		Cash	50	
Cash		50	Invest. in Bond	10	
Discount		10	Interest Income		60
Same journal entries for next 3 periods.			Same journal entries for next 3 periods.		
December 31, year 2					
Bond Payable	1,000		Cash	1,000	
Cash		1,000	Invest. in Bond		1,000

Example - 18 Effective Interest Method of Discount Amortization

Same as Example 15, except use the effective interest method to amortize the discount.

Borrower			Investor		
January 1, year 1					
Cash	960		Invest. in Bond	960	
Discount	40		Cash		960
Bond Payable		1,000			
June 30, year 1					
Interest Expense			Cash	50	
[(1,000 – 40) × 6.15%]	59		Invest. in Bond	9	
Cash		50	Interest Income		59
Discount		9			
December 31, year 1					
Interest Expense			Cash	50	
[($1,000 – 30.96) × 6.15%]	60		Invest. in Bond	10	
Cash		50	Interest Income		60
Discount		10			
June 30, year 2					
Interest Expense			Cash	50	
[(1,000 – 21.36) × 6.15%]	60		Invest. in Bond	10	
Cash		50	Interest Income		60
Discount		10			
December 31, year 2					
Interest Expense			Cash	50	
[(1,000 – 11.18) × 6.15%]	61		Invest. in Bond	11	
Cash		50	Interest Income		61
Discount		11			

Mid-Period Issue

Example - 19 Issuance Between Interest Dates

$1,000 face value, 2-year bond with a 10% coupon rate of interest is sold on April 1 of the current year at par. Interest is paid semi-annually on June 30 and December 31.

Borrower			Investor		
April 1					
Cash	1,025		Invest. in Bond	1,000	
Bond Payable		1,000	Interest Receivable	25	
Interest Payable		25	Cash		1,025
June 30					
Interest Expense	25		Cash	50	
Interest Payable	25		Interest Income		25
Cash		50	Interest Receivable		25

Warrants

Example - 20 Detachable Warrants

On January 1 of the current year, 100 bonds with $1,000 face values and each with 20 detachable stock warrants (100 × 20 = 2,000) are sold at 105. Twenty warrants and $800 may be converted into one share of $200 par value common stock. The warrants have a fair value of $12,000 and expire on July 1. One half of the warrants are exercised on June 30 and the other half expire on July 1.

Borrower			Investor		
January 1					
Cash	105,000		Invest. in Bond	93,000	
Discount	7,000		Warrants	12,000	
Bond Payable		100,000	Cash		105,000
APIC—Warrants		12,000			
June 30					
Cash	40,000		Invest. in Stock	46,000	
APIC—Warrant	6,000		Cash		40,000
Common Stock		10,000	Warrants		6,000
APIC		36,000			
July 1					
APIC—Warrant	6,000		Loss on Investment	6,000	
APIC		6,000	Warrants		6,000

Computations:

Warrant	$12,000 × 50% =	$ 6,000
Cash	$ 800 × 50 =	40,000
		46,000
Common stock	$200 par × 50 =	(10,000)
APIC		$ 36,000

Convertible Bonds

Example - 21 Convertible Bonds, Book Value Method

On January 1 of the current year, 100 bonds with $1,000 face values and each with 20 nondetachable stock warrants (100 × 20 = 2,000) are sold at 105. Twenty warrants, one bond, and $800 may be converted into one share of $200 par value common stock. 50% of the bonds are converted on June 30, and the book value method is used to record the conversion.

Borrower			Investor		
January 1					
Cash	105,000		Invest. in Bond	105,000	
Bond Payable		100,000	Cash		105,000
Premium		5,000			
June 30					
Cash	40,000		Invest. in Stock	92,500	
Bond Payable	50,000		Cash		40,000
Premium	2,500		Invest. in Bond		52,500
Common Stock		10,000			
APIC		82,500			

Computations:

Bond	$1,000 × 50 =	$50,000
Premium	$5,000 × 50% =	2,500
Cash	$ 800 × 50 =	40,000
		92,500
Common stock	$200 par × 50 =	(10,000)
APIC		$82,500

Example - 22 Convertible Bonds, Market Value Method

On January 1 of the current year, 100 bonds with $1,000 face values and each with 20 nondetachable stock warrants (100 × 20 = 2,000) are sold at 105. Twenty warrants, one bond, and $800 may be converted into one share of $200 par value common stock. All of the bonds are converted on June 30. The market value method is used to record the conversion and the fair value of the stock on the date of conversion is $2,000.

Borrower			Investor		
January 1					
Cash	105,000		Invest. in Bond	105,000	
Bond Payable		100,000	Cash		105,000
Premium		5,000			
June 30					
Cash	80,000		Invest. in Stock	200,000	
Bond Payable	100,000		Cash		80,000
Premium	5,000		Invest. in Bond		105,000
Loss on Conversion	15,000		Gain on Conversion		15,000
Common Stock		20,000			
APIC		180,000			

Computations:

Bond	$1,000 × 100 =	$ 100,000	Common stock	$ 20,000	
Cash	$ 800 × 100 =	80,000	APIC	180,000	
Common stock	$200 par × 100 =	20,000			$ 200,000
APIC	($2,000 – 200) × 100 =	180,000	Bond	100,000	
			Premium	5,000	
			Cash	80,000	
					(185,000)
			Gain		$15,000