

Toward Business Literacy: Accounting Outlines



Bonds

Bond Characteristics

- Term of a bond is usually for more than one year
- Bonds are approved by the board and the shareholders
- Bonds are governed by covenants stated in the bond indenture
 - Amounts authorized
 - Interest or coupon rate
 - Due date or dates
 - Call provisions (to call and retire bonds at a certain price and conditions)
 - Property pledged as security
 - Sinking fund requirements (fund to pay off the bonds)
 - Working capital and dividend restrictions
 - Working capital is the current assets less current liabilities
 - Restrictions on dividends safeguards the ability to pay bonds
 - Limits on assuming new debt
- Issuance of bonds
 - Investors buy bonds in small denominations (\$1000)
 - Bond indenture: contract to pay at a date with periodic interest payments
 - Some bonds are **underwritten** (sold to investment bankers who guarantee a certain sum to corporations and take the risk of selling to their clients at whatever price they can get)
 - **Best efforts** sell for commission, deducted from the proceeds
 - Others for **private placement** (sell directly to large institutions)
- Types and Ratings
 - **Secured** bonds are backed by collateral
 - Mortgage bonds have a claim on real assets
 - Collateral trust bonds are backed by other corporations
 - **Unsecured** are not backed by collateral and are called debenture bonds. Some of these are **junk bonds**, used for leveraged buyouts
 - **Term bonds** mature on a single date
 - **Serial bonds** mature in installments (for schools, municipalities)
 - **Callable bonds** give the issuer the right to call and retire the bond
 - **Convertible bonds** are commodity backed and deep discount
 - Linked to assets such as coal, oil and steel
 - Deep discount are zero coupon: one payment at maturity
 - **Registered bonds:** are issued in the name of the owner
 - **Bearer bonds:** have no recorded name and are transferred by delivery
 - **Income bonds:** no interest unless the company is profitable
 - **Revenue bonds:** interest and principle paid from a revenue source
- Issuers and classes of bonds
 - **US government**
 - T-bills are under one year maturity
 - T-notes are under 10 years maturity
 - T-bonds are longer maturity
 - **Municipal** issues federal and state tax-free bonds
 - **Corporate** bonds are rated by Moody's and Standard and Poor's
 - **Commercial Paper** is short term financing by businesses
 - **Mortgages** are securitized debt

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Debt Valuation and Interest

- A financial instrument such as a bond is always valued at the present value of the cash flows discounted at the market rate
 - A bond has two cash flows associated with it:
 - The present value of the *principal payment* at the end (PV1)
 - The PV of the *regular interest cash payments* (PV annuity)
 - Cash payments = Principal x Stated Rate x Time
 - If payment is semiannual, multiply years by 2, and divide rate by 2 when using tables or calculator (i.e. 10 years @ 10% semiannual: n=20 r=5%)
 - Notice there are two rates:
 - The stated rate is used to calculate the cash interest payment
 - The market rate is used to discount the cash flows to get PV
- A bond may sell at a discount or a premium, according to market
 - A discount is a selling price below the face value (98 is 98% of face)
 - A premium is a selling price above face value (102 is 102% of face)
- JE (premium)

	Cash	\$10200
	Bond payable	\$10000
	Premium on bonds	\$200
- JE (discount):

	Cash	\$9800
	Discount on Bond	\$200
	Bonds Payable	\$10000

Interest Expense

- Interest expense is composed of two components: The cash interest paid +/- amortization of the discount/premium

Premium JE:	Premium on bonds	\$10
	Interest expense	\$490
	Cash	\$500
Discount JE:	Interest expense	\$510
	Discount on Bond	\$10
	Cash	\$500

- Both of these entries amortize premium/discount on a **straight-line** basis (\$200/20 periods= \$10 amortization per period)
- Also remember that these are semiannual payments (1/2 annual)
- The **Effective Interest Rate** method finds interest expense **first**:
 - Current carrying value x *market* interest rate= interest expense
 - Interest expense less cash paid gives amortization amount
 - Find new **carrying value** after each payment
 - Bond face value less unamortized discount or plus premium
 - Repeat process until bond matures and has no discount or premium

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Bond Issuance between Periods

- If a bond is issued or sold between interest periods, then there must be an accrual of interest
 - For the issuer, this is selling the buyer a receivable
 - The issuer can also credit interest expense, but it is preferred to recognize a receivable
 - The issuer debits the cash received for the bond plus any accrued interest; the credit is to bonds payable and an interest payable (for the accrued interest)
 - For the buyer, a receivable is debited for the accrued interest

Other Bond Concerns

- The cost of issuing the bonds is a deferred charge (asset) called Unamortized Bond Issue and is amortized over the life of the bond
- If debt is extinguished → reacquisition price less net carrying amount give a gain or loss
 - Be sure the unamortized premium or discount is up-to-date

Notes Payable

- Valued at the present value of future interest and principle cash flow
- A Zero-Interest-Bearing Note is issued fully discounted, and the total discount is amortized to interest expense over note's life

Imputed Interest

- If a note has no ready market or cannot be derived from the FMV of what is given or received, an interest rate can be approximated
 - The rate is the same for similar instruments with similar ratings
 - Can be affected by restrictive covenants, collateral, payment schedule, existing prime rate; it is made when issued and any subsequent changes are ignored.