

What is a *bond*?

A bond is either a source of financing or an investment, depending on which side of the transaction we are interested in. A company sells a bond to raise money and an investor buys the bond as an investment. The bond that is issued has on it a face amount, a stated rate and maturity date. Every year the bond will pay a fixed amount of interest, and the issuer will pay the buyer the face value of the bond at the maturity date.

Large companies and national governments most often are the issuers of bonds. However, small companies and even individuals can issue bonds.

How is the *selling price* of a bond determined?

The selling price (or issuance price) of a bond is determined by calculating the present value of the future cash flows related to the bond. There are two future cash flows:

- 1) The payment of interest each interest period (the amount of interest paid is calculated as the face amount multiplied by the stated rate of interest and divided by the number of times per year interest is paid), and
- 2) The payment of the face amount at the maturity date.

These present value calculations are made using the market rate of interest since this is the interest rate that the buyer could earn elsewhere.

The amount of interest paid each interest period in cash remains unchanged throughout the life of the bond.

What happens when the market rate of interest is *different* from the stated rate?

The accounting for the bond is influenced by the market rate for similar investments.

When the market rate of interest is higher than the bond's stated rate, the present value of the cash flows of the bond will be less than the face amount of the bond. The seller will have to sell the bonds at a discount because of the fact that the market pays more interest than the bond.

When the market rate is lower than the stated rate, the selling price of the bond will be higher than the face amount, and the bond will be sold at a premium.

If we calculate the effective interest rate on the bond, using the actual cash flows to be received and the actual selling/purchase price, this effective rate of interest will be equal to the market rate of interest.

How is the *sale* of the bond recorded and what is the *carrying value* of the bond?

The sale of bonds is recorded as follows:

Dr	Cash.....	selling price as calculated
Dr	Bond Discount.....	balance
Cr	Bond Payable.....	face amount
Cr	Bond Premium.....	balance

The bond payable account is always credited for the face amount and the cash account is always debited for the selling price. There will be either a premium or a discount to balance the entry (there will never be both a premium and a discount).

The premium or discount is amortized over the life of the bond. The carrying value of the bond is equal to the face value of the bond plus the unamortized premium or minus the unamortized discount. For a premium bond, the carrying value decreases over time and for a discounted bond it increases, as the premium or discount is amortized.

How is the *premium*
or *discount amortized*?

The premium or discount is amortized over the life of the bond so that at the maturity date the carrying value of the bond will be equal to the face value of the bond. The amount of premium or discount that is amortized each period will be an adjustment to the interest expense that is recorded.

The amortization of a premium decreases the interest expense below the amount of cash paid and the amortization of a discount increases interest expense above the amount of cash paid.

There are two methods to amortize the discount or premium:

- 1) The straight-line method – The amount amortized is the same each period.
- 2) The effective interest method – The amount amortized is the difference between the interest expense and the cash paid.

How is interest expense
and discount/premium
amortization calculated
under the *effective
interest method*?

Under the effective interest method, the amount of interest expense is calculated by multiplying the carrying value of the bond at the beginning of the period by the market rate of interest divided by the number of interest payments per year. This is the amount of interest expense in the journal entry.

The amount of cash paid as interest is calculated by multiplying the face amount of the bond by the stated rate of interest and dividing by the number of interest payments per year.

The balance to these two items is the amount of premium or discount that is amortized during the period. The journal entry is as follows:

Dr	Interest Expense.....	calculated as above
Dr	Bond Premium.....	balance
	Cr	Bond Discount.....balance
	Cr	Cash.....calculated as above

How is an *investment in bonds* accounted for?

- 1) An investment in a bond is recorded at the amount paid. The face value and any premium or discount are not recorded separately the way the issuer does.
- 2) Any premium or discount for:
 - a) Held-to-maturity bonds is amortized as an adjustment to interest income.
 - b) Available-for-sale bonds is amortized as an adjustment to interest income.
 - c) Trading securities bonds is not amortized.
- 3) Adjustment to fair value using a separate valuation account:
 - a) Held-to-maturity bonds are not adjusted to fair value.
 - b) Available-for-sale bonds are adjusted to fair value.
 - c) Trading securities bonds are adjusted to fair value.

How is the *sale of bonds* between interest payment dates recorded?

When bonds are sold between the dates on which interest is paid, whoever holds the bond on the interest date will receive the entire period's interest, even if they just purchased the bond the day before.

Therefore, the buyer of the bond needs to pay not only for the bond itself, but also must pay the seller for the interest that the bond has earned since the last interest date and up to the sale.

Interest purchased by a buyer is recorded as a debit to interest receivable. Interest sold by an issuer is recorded as a credit to interest payable. This interest is not recorded as interest revenue by the buyer nor as interest expense by the issuer. Interest sold by a seller of a bond sold in the secondary market is interest revenue to the seller on the sale date, for whatever amount of time the bond was outstanding during the interest period and owned by the seller.

What are *bond issue costs*
and how are they
accounted for?

Bond issue costs consist of underwriting fees, printing fees, filing fees, accounting fees and advertising fees.

Bond issue costs are deferred and amortized on the straightline method over the life of the bonds.

They are not included in the calculation of the carrying value of the bond.

They are a reduction of net proceeds received from the bond issuance but are not a reduction of the company's liability for repayment of the bond.

How is the *early retirement*
of bonds accounted for?

When bonds are retired early all that is happening is that the seller is buying the bonds back from the buyer, prior to the maturity date (i.e., the issuer is paying off the debt before its maturity).

Any premium or discount being amortized and any bond issue costs being amortized must first be amortized up to the reacquisition date.

After that, all of the bond accounts are written off – this will be bond payable, bond premium or discount and maybe bond issue costs. The amount of cash paid to retire the bonds will be credited and the difference is recorded as a gain or loss.

The gain or loss is an ordinary gain or loss, unless the transaction itself meets the definition of an extraordinary event. To be classified as an extraordinary gain or loss, it must be an unusual and infrequent occurrence.

What are
convertible bonds?

Convertible bonds are bonds that can be converted into common shares at the option of the owner of the bonds. The conversion feature makes convertible bonds more attractive to potential investors because they can be converted to shares if the dividends regularly being paid on common shares increase, if the share price increases or if interest rates increase, making the return on the bonds insufficient.

How is the *conversion*
of bonds accounted for?

There are two methods to account for the conversion of bonds.

- 1) Under the book value method (the preferred method), the bonds are written off the books and the shares are written onto the books at a value that is equal to the book value of the bonds that were converted. Under the book value method, there is no gain or loss.
- 2) Under the fair value method the bonds are written off the books and the shares are recorded at their fair market value. The difference between these two amounts will be recorded as an ordinary gain or loss.

A company can use either method, but must consistently use the same method for all bond conversions.