

What is a *bond*?

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

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

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The sale of bonds is recorded as follows:

Dr Cash selling price as calculated
Dr Bond Discount balance (loss)
 Cr Bond Payable face amount
 Cr Bond Premium balance (gain)

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 **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.

The premium or discount will be 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 the premium decreases the interest expense below the amount of cash paid and the amortization of the 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** – Under this method the same amount of premium or discount is amortized each period.
- 2) **The effective interest method** – This method is looked at in more detail on another card.

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. 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. 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 CV * market
Dr Bond Premium balance
 Cr Bond Discount balance
 Cr Cash face * stated

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

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

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

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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.

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 year (the amount of interest paid is calculated as the face amount multiplied by the stated rate of interest), 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 year in cash remains unchanged throughout the life of the bond.

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 an *investment in bonds* accounted for?

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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. The accounting for this process is very similar to that of accounting for the sale of fixed assets.

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.

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

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Convertible bonds are bonds that can be converted into common shares at the choice 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 increase, the share price increases or interest rates increase, making the return on the bonds insufficient.

How are *bond issue costs* accounted for?

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

- 1) Under the **book 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.

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

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The accounting for an **investment in bonds** is very similar to the accounting for the issuance of bonds, except that it is opposite since we are looking at the opposite side of the same transaction. Instead of interest expense, it is interest revenue; instead of crediting bond payable, it is a debit to investment in bonds, and so on.

The one difference is that the **buyer of the bonds does not record a premium or discount**. Rather the investment in bonds is initially recorded as the purchase price. However, interest revenue and cash received are calculated the same as for the issuer, and the interest expense of the issuer will be equal to the interest revenue of the buyer. The buyer simply records the difference between cash and interest revenue directly in the investment in bonds account.

The **buyer's interest revenue will always be equal to the seller's interest expense**.

What are *convertible bonds*?

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When **bonds are sold** between the dates on which interest is paid, for example in the middle of the year, the accounting is very simple if you remember that **whoever holds the bond on the interest date will receive the entire year's interest**, even if they purchased the bond only on December 30.

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 prior to the sale. This is recorded as **interest payable or receivable by the seller and buyer, respectively**.

How is the *conversion* of bonds accounted for?

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Bond issue costs will consist of underwriting fees, printing fees, filing fees, accounting fees and advertising fees. Therefore, the way that they are accounted for is important because they may add up to a large amount.

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