4.3.10. TAXATION OF CORPORATE BONDS

Most corporate bonds pay interest annually. This interest is taxed at the bondholder's ordinary tax rate.

4.3.10.1. Premium Bonds

A corporate bond can be bought at either a premium or discount to its par value, and each has different consequences for the bondholder. If the bond is purchased at a premium, the bondholder can choose one of two alternatives at tax time. If the bond is sold for less than it was bought for, the bondholder can take a loss on his taxes in the year of the sale. The loss is the difference between the purchase price and the sale price. A loss can also be taken if the bondholder holds the bond to maturity. In this case, the loss is the difference between what the bondholder paid for the bond and the face value of the bond—also called the premium.

Example: Jeffery purchases a $5,000 10-year bond on the secondary market for $5,700. The bond is redeemable in seven years. At maturity, he redeems the bond and takes a $700 loss on his taxes. He uses this loss to offset taxable earned income from other investments.

An alternative method of dealing with the tax consequences is to amortize the premium over the life of the bond. The amortized amount is determined by dividing the premium by the number of years to maturity when the bond is purchased. When a bond is amortized, its annual amortization reduces the adjusted cost basis of the bond until, at maturity, the adjusted cost basis will equal the bond's redemption value. If the investor holds the bond until maturity, she will have no capital losses. The amount of the premium that is amortized each year is reported to the IRS and applied to the investor's annual tax statement. It can be used to offset taxable earned income.

Example: Abigail purchases a $5,000 10-year bond on the secondary market for $5,700. The bond is redeemable in seven years. Her amortized loss on the bond will be $100 per year ($700 premium / 7 years). Subtracting that amount from her cost basis annually will result in an adjusted cost basis of $5,000 at the bond's maturity ($5,700 – (7 years x $100)). Thus, if she holds the bond to maturity, Abagail will incur no capital loss.

The main advantage of amortizing the premium of a corporate bond is that doing so reduces annual taxable bond income. This is because the amortized premium is applied to the taxable interest over the life of the bond. To understand how this works, consider the above example. Abigail's bond has a 5% coupon rate, so each year she will be paid $250 ($5,000 x 0.05) in interest. Her amortized loss, as we have seen, is $100 per year ($700 premium / 7 years). The $250 interest is reported as taxable interest on the federal forms, but the amortized premium of $100 is deducted from that amount. Thus, she will only have to pay taxes on $150 of the interest that comes from holding the bond. This deduction will occur in each year that Abagail holds the bond.

When an investor who amortizes his premium sells his bond before it reaches maturity,

the adjusted cost basis is used to calculate capital gains and losses. That is done by subtracting the adjusted cost basis from the sale price. If the amount is positive, it will count as a capital gain; if it is negative, it will count as a capital loss. For instance, suppose Abigail sells her bond for $5,700 three years after she purchased it. The bond's adjusted cost basis will be the price that Abigail paid less the total amortization during the period that she held it, a total of $5,400 ($5,700 – (3 x $100)). Subtracting that amount from the $5,700 secondary sale price leaves a capital gain of $300. This amount will be taxed as a long-term capital gain because Abagail has held the bond for longer than one year.

 **Example:** James purchases a 10-year bond in the secondary market for $5,400 two years after it is issued. The bond has a face value of $5,000 and is redeemable in eight years. His $400 premium is amortized by $50 each year (400 / 8 = $50). Suppose that, after holding the bond for four years, James sells it for $5,100. His adjusted cost basis will be $5,200 ($5,400 – (4 years x $50)). Since he sold the bond for $100 less than his adjusted cost basis ($5,100 – $5,200), James has incurred a capital loss of $100. James reports the sale of his premium bond as a capital loss on his tax form and reduces his capital gains by that amount.

4.3.10.2. Discount Bonds

When a bond is bought in the market at a discount to par, the bondholder has the same two alternatives at tax time. A bondholder who chooses not to accrete the discount and holds the bond to maturity will pay his regular tax rate on the discount at maturity. If the bondholder sells the bond prior to maturity, the adjusted cost basis will be used to determine how the proceeds will be taxed. The adjusted cost basis of the bond is determined by accreting the discount each year until the bond is sold. All profits up to the adjusted cost basis will be treated as ordinary income and taxed at the seller's ordinary rate, while any additional profit will be taxed at the seller's capital gains rate. The capital gains will be long-term if the seller has held the bonds for more than a year and short-term if he has held it for a year or less.

Note: If the amount of the discount is equal to or below the de minimis amount, it will always be taxed as capital gains. The IRS sets the de minimis amount for market discounts at 0.25% of par per year between the time of the acquisition and the bond's maturity.

 **Example:** Three years after its issue date, Sarah purchases a $5,000 6% corporate bond with a 10-year maturity for $4,300. At the time of purchase, she decides not to accrete the discount and then sells the same bond 3 years later for $4,700. The cost basis for her bond at the time of original purchase is $4,300. Since the annual accretion on the bond is $100 ($700 / 7 years) and she held the bond for 3 years, the bond accreted a total of $300 during the time she held it. Adding that amount to the cost basis gives an adjusted cost basis of $4,600. The difference between the adjusted cost basis and the original cost basis, which is $300, will count as ordinary income. The remaining $100 of Sarah's profit will be taxed as long-term capital gain.

If, on the other hand, the bondholder chooses to accrete the discount over the life

of the bond, the accreted amount is added to his annual taxable interest. In addition, the accreted amount is added each year to the cost basis of the bond. At maturity, the adjusted cost basis of the bond will be equal to its par value. If a bondholder who chooses to use this method sells the bond prior to maturity, any difference between the bond's adjusted cost basis and its sale price will be treated as capital gain or loss.

Example: Brandy purchases a $5,000 5% corporate bond with a 10-year maturity. She pays $4,000 for the bond five 5 after it is first issued, and she chooses to accrete her discount. Since she purchased the bond at a $1,000 discount ($5,000 – $4,000) when it had 5 years to maturity, she will accrete $200 of her discount per year ($1,000 / 5). This annual accretion will be added to both her cost basis and her taxable income. Since her annual coupon payment for the bond is $250 ($5,000 x 0.05), she will have $450 in taxable income each year that she holds the bond ($250 + $200).

After holding the bond for 3 years, Brandy sells it for $4,750. During that time period, the bond accreted $600, making Brandy's cost basis $4,600 ($4,000 + (3 x $200)). She thus sells the bond at a $150 profit ($4,750 – $4,600). Because she has accreted the discount on the bond, Brandy will be taxed on that $150 at the long-term capital gains rate. She will not be taxed at her income rate for any profit she receives as a result of selling the bond.

4.3.10.3. Zero Coupon Bonds

Treasury bills, STRIPS, and corporate zeros are all considered zero coupon bonds because they do not pay annual interest over the life of a bond. Instead, each is bought at a deep discount and matures at the bond's par value. Even though the bond does not pay interest payments, the IRS considers the amount of discount to be taxable interest. The taxpayer must divide the discount by the bond's total maturity to come up with the bond's annual "phantom" interest. The bondholder will then pay taxes on this phantom interest at her ordinary tax rate. She will also adjust the cost basis of the bond by adding the annual phantom amount each year. The adjusted cost basis of the bond will accrete (increase) each year until it is equal to the par value at maturity.

If an investor sells a zero coupon bond before it matures, she will usually be subject to a capital gain or loss. To determine the amount of gain or loss, the bond's adjusted cost basis at the time of sale is subtracted from the sale price. If the sale price is higher than the bond's cost basis, then the positive difference is a capital gain; if the sale price is lower than the adjusted cost basis, then the negative difference is a capital loss.

Example: Sally buys a $1,000 zero for $750. It will mature in five years. The amount of the discount is $250. Annual phantom income is $50 ($250 / 5). The adjusted cost basis will change according to the following schedule:

TIMING	ADJUSTED COST BASIS
At Purchase	$750
Year 1	$800
Year 2	$850
Year 3	$900
Year 4	$950
Year 5	$1,000

4.3.11. TAXATION OF U.S. TREASURIES AND MUNICIPAL SECURITIES

One reason why an investor may choose to purchase Treasury or municipal bonds is that her interest is taxed at a lower rate than corporate bonds. For Treasury bond interest, an investor pays federal taxes, but no state taxes on earnings. For municipal bonds, the tax benefits can be even greater. Investors pay no federal taxes on earnings from municipal bonds and also pay no state or municipal taxes if they live in the state or municipality that issued the bond. For this reason, sometimes municipal bonds are called "triple tax-free bonds."

Because interest on corporate bonds is taxed at an investor's ordinary income rate, investors often want to be able to compare **after-tax yields** of government or municipal bonds to corporate bonds. There are two ways to do this.

The most straightforward way is to multiply the yield of each kind of bond by one minus the tax rate for the bond. For example, imagine an investor has a federal tax rate of 27% and a state tax rate of 3%. The investor would like to compare a corporate bond with a 10% yield and a municipal bond issued by the state in which he lives, which has a yield of 7.5%. We can calculate the corporate bond's after-tax yield by multiplying 10% x (1 – 0.30), which equals 7%. We can compare this after-tax yield directly to the yield of the municipal bond because the investor will not pay federal or state taxes on this municipal bond. In this case, we see that the municipal bond, with a tax-free 7.5% yield, beats the corporate bond's after-tax yield of 7%.

$$\text{after-tax yield on a corporate bond} = \text{coupon rate} \times (1 - \text{tax rate})$$

Another approach to this question is to calculate the **tax-equivalent yield (TEY)** of the municipal bond. This is also called the **corporate equivalent yield (CEY)**. This concept measures the yield that a corporate bond will have to pay to be equivalent to a municipal or Treasury bond, factoring in the investor's tax rate.

$$\text{TEY} = \frac{\text{coupon rate}}{1 - \text{tax rate}}$$

Again, consider the investor with a 27% federal tax rate and a 3% state tax rate. If the investor is considering a municipal bond issued by the investor's own state, the investor