# The Value of Premium Bonds 

## Premium Bonds

As a result of the historically low interest rate levels that we have experienced throughout the past few years, many of the bonds in the marketplace are trading at prices greater than their respective par values. Par value is the dollar amount paid to the bondholder when a security matures, which in most cases is $\$ 1,000$. Bonds trading at price levels greater than par value are referred to as premium bonds.

A premium bond occurs because the bond's interest rate, also known as the coupon, is greater than the prevailing interest rate in the bond market. This higher coupon rate causes the bond to be more attractive to investors. As a result, investor demand will increase the price of the bond over par until the bond's yield (or internal rate of return) reaches a level similar to other bonds in the marketplace. To simplify this concept, let's apply it to a "real world" scenario.

Assume that an investor purchased both of the Treasury bonds illustrated in Table 1 below, paying a total of \$2,060.80 for the two bonds. Although both of the bonds were the same quality, matured in five years, and had a yield to maturity of $8.50 \%$ (equal to the market's rate), the price of Treasury Bond A was $\$ 1,000$ and Treasury Bond $B$ was $\$ 1060.80$. With such similar characteristics why did the investor pay a different price for each of the bonds?

Table 1
A Par and Premium Bond.

| Treasury Bond A |  | Treasury Bond B <br> Maturity |  |
| :--- | :--- | :--- | :--- |
| Coupon Years | Maturity | 5 Years |  |
| Price | $8.50 \%$ | Coupon | $10.00 \%$ |
| Yield to Maturity | $8.5 \%$ | Price | $\$ 106.08$ |

* Prevailing Market Interest Rate is 8.5\%

The price difference was a result of the two bonds distinct coupon rates. Treasury Bond A's $8.50 \%$ coupon was equal to the market rate whereas, Treasury Bond B's $10.00 \%$ coupon was $1.5 \%$ greater than the market rate. Thus, the price of Treasury Bond $B$ was $\$ 60.80$ greater than par value, due to the market demand for the higher coupon. This premium equalized the yield and attractiveness of the two bonds.

## Misconceptions \& Taxation

Sometimes investors fear that by purchasing premium bonds they are guaranteeing a capital loss in their portfolios when the bond is either called or matures. However, as we have illustrated in the example above, the premium bond investor receives a higher level of cash flow throughout the life of the bond. This extra coupon received compensates for this premium amortization. Table 2, a bond amortization table for Treasury Bond B (located at the top of the following page) illustrates this concept.

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Current tax law requires that the investor amortize the bond premium, or in other words, adjust the security's cost basis over the life of the issue. When a bond is acquired at a premium, the cost basis of the bond will decrease over time. The second column in Table 2 demonstrates the reduction of Treasury Bond B's cost basis at each interest payment period. At maturity, the cost basis will have adjusted to par value.

Due to the amortization, Treasury Bond B's semiannual $\$ 50.00$ coupon payment is actually comprised of both premium amortization (principle) and interest. Payment 1, in Table 2, illustrates this, as the coupon returns $\$ 4.95$ in premium amortization and $\$ 45.05$ in interest to the investor.

Table 2
A Bond Amortization Table for Treasury Bond B (Taxable Bond Amortization)

| Semi-Annual Period | Adjusted Cost Basis | Coupon Interest | Amortization | Net Interest |
| :---: | :---: | :---: | :---: | :---: |
| Purchase | $\$ 1,060.08$ | $\$ 0.00$ | $\$ 0.00$ | $\$ 0.00$ |
| Payment 1 | $\$ 1,055.13$ | $\$ 50.00$ | $\$ 4.95$ | $\$ 45.05$ |
| Payment 2 | $\$ 1,049.98$ | $\$ 50.00$ | $\$ 5.16$ | $\$ 44.84$ |
| Payment 3 | $\$ 1,044.60$ | $\$ 50.00$ | $\$ 5.38$ | $\$ 44.62$ |
| Payment 4 | $\$ 1,039.00$ | $\$ 50.00$ | $\$ 5.60$ | $\$ 44.40$ |
| Payment 5 | $\$ 1,033.15$ | $\$ 50.00$ | $\$ 5.84$ | $\$ 44.16$ |
| Payment 6 | $\$ 1,027.06$ | $\$ 50.00$ | $\$ 6.09$ | $\$ 43.91$ |
| Payment 7 | $\$ 1,020.71$ | $\$ 50.00$ | $\$ 6.35$ | $\$ 43.65$ |
| Payment 8 | $\$ 1,014.09$ | $\$ 50.00$ | $\$ 6.62$ | $\$ 43.38$ |
| Payment 9 | $\$ 1,007.19$ | $\$ 50.00$ | $\$ 6.90$ | $\$ 43.10$ |
| Maturity | $1,000.00$ | $\$ 50.00$ | $\$ 7.19$ | $\$ 42.81$ |
|  |  | $\$ 500.00$ |  | $\$ 440.00$ |

The net interest received from the payment is equivalent to the market's interest rate $(\$ 45.05 / \$ 1,060.08=$ $4.25 \%$ ) or in other words the interest rate that a par bond would have paid. Although the investor received $\$ 500$ in interest over the holding period of the bond, only the net interest amount of $\$ 440$ is reportable as income.

It is important to note, that the amortization method differs depending upon whether the bond is a taxable or municipal security. With respect to taxable securities, such as Treasuries, agencies, or corporates, the premium amortization is deducted from the coupon payment thereby, reducing the amount of reportable income. For municipal securities this amortization process differs slightly. Since municipal interest is tax free, amortization is not used as a deduction from income, but rather an adjustment to the ongoing cost basis.

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## Benefits

When used as part of an investment strategy, premium bonds can be quite valuable. Some of the chief benefits of investing in premium securities are indicated below:

- Investors requiring a greater cash-flow can produce "income" levels above that of prevailing market rates. Those who are willing to accept this higher "income" should be aware that they may be withdrawing principal, as it is returned to the investor as a portion of the coupon payment.
- As premium bonds create more income, they can help reduce bond risk in a rising interest rate environment by lowering duration. Duration is key measurement used to assess bond risk. The lower the duration number, the less volatile a bond will be to changes in interest rates. By paying out a portion of the principle in coupon interest payments, that principle is no longer subject to price fluctuation. By receiving the cash up front, you have lowered your interest rate risk exposure.
- Premium bonds can enhance portfolio return in a rising interest rate environment through reinvestment. As interest rates increase, premium bond investors are able to re-invest the increased cash-flow payment at a higher interest rate. This strategy helps to reduce downward price sensitivity.
- Finally, Premium bonds can sometimes offer higher returns than other types of fixed income securities of similar quality and maturity. At times investors can be averse to buying bonds priced above par value. This can result in premium bonds providing an additional yield benefit. Because there may be less demand for them, they may trade with a yield greater than comparable quality bonds that are priced at or near par value. When premium bonds are cheaply valued, knowledgeable investors can capitalize on above-market returns.


## In Conclusion

Premium bonds, when used as part of an investment strategy, can help add value to your portfolio. However, as with any investment, there are associated risks and the suitability of these bonds for clients' needs and expectations should always be paramount.

