

## Fixed Income Insight February 17, 2005

### *Bond Investing 101: The Basics*

While many of our clients are well-versed in bond investing, those not as familiar with the intricacies of the bond investment process may find the following brief overview of the key terms and dynamics involved in the world of bond transactions very helpful.

#### *How Bonds are Purchased*

When buying bonds, investors are offered an opportunity to buy them at “par value,” at a “discount” or at a “premium.” Since a bond is basically a loan made to a government institution or a corporation, par value represents the dollar amount that the bond will be worth when it matures. Although most bonds are sold in denominations of \$1,000 or \$5,000, par value is often quoted as 100 meaning that the investor will purchase the bond at 100 percent of its full redemption value; for example, \$1,000 or \$5,000.

If you buy a bond at a **discount**, you will pay less than 100 percent of the par value. A **premium** bond, on the other hand, is a bond which will cost more than par.

Bonds are generally offered at a discount if their promised interest rate is below rates available on similar maturity bonds currently available in the market. Many investors may be willing to pay a premium for a bond issue if it provides a higher income stream.

#### *How Bonds Pay Interest*

The rate at which a bond will pay interest is often referred to as the **coupon** rate. This rate allows investors to determine the annual interest payments that they can expect to receive on a bond. For example, multiply the coupon rate, say 5 percent, by the par value of \$1,000 to equal a \$50 annual interest payment.

The term “coupon” was first used to describe the practice of detaching coupons from a bond certificate and cashing them in at a bank on the designated interest payment dates. Each coupon was good for a specific interest payment determined at the time of the original bond sale. The practice of “coupon cutting” has been streamlined substantially, as bonds with coupons (called “bearer bonds”) have largely been replaced by registered bonds, in which the interest and principal payments are automatically returned to the registered party.

It is important to note that the interest rate or coupon rate is not a measure of actual investment yield or return unless the bonds are purchased at par value. Since most bond purchases are made at a discount or a premium, the expected yield will differ from the stated coupon. There are two calculations that describe the return. The first and most basic calculation is the current yield. Simply put, the current yield is the ratio of the coupon to the current price. For example a bond with a coupon of 8 percent selling at a price of 95 has a current yield of 8.42 percent. Bonds listed in the *Wall Street Journal* tables are quoted on this basis.



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While the current yield of bonds is a relatively simple calculation, measuring return on your investment is a little more difficult. In order to accurately measure return, you have to account for the principal amount to be paid at maturity. The commonly preferred method of calculating return on bonds is the **yield to maturity (YTM)** because it reflects the difference in the value of the principal between the time a bond is purchased and sold. As a general rule, this difference has a corresponding effect on YTM. When a bond is purchased at a discount, the YTM is greater than the coupon; a purchase at a premium results in a YTM less than the coupon. The bond used in the previous example with a 10-year maturity has a YTM of 8.76 percent. The YTM is greater than the current yield because of the underlying assumption that the coupons are reinvested at the yield-to-maturity rate.

If the bond is called prior to its stated final maturity date, yield calculations must be figured based on the first optional call date. This calculation is called **yield to call (YTC)**. Bonds sold in the open market are offered to potential investors at the lower price based on the YTM or the YTC calculation. Investors are advised to always ask for the applicable YTM or YTC figures.

Bonds involving **prepayments** of principal at any time (most common with mortgage-backed securities) complicate the yield calculations since the anticipated principal repayment date is not certain. When prepayment calls are likely at any time, investors who buy premium bonds risk losing all or part of their investment representing the portion over and above the par value of the bonds. For example, if a bond is purchased at 110 and the bond is callable at par, then the 10 percent paid above par will be forfeited at the time the call is initiated.

#### **How Bonds Are Sold**

Finally, investors who want to sell their bonds early can usually do so subject to the current prices quoted on that particular bond in the secondary market. The **secondary market** refers to the trading market for bonds once they have passed the new issue underwriting period, or **primary market**. Secondary market prices depend on supply and demand factors. Considerations influencing supply and demand may include changes in credit rating of the issue or interest rate trends. For example, a bondholder who holds a bond which was originally priced at par to yield 5 percent at purchase will have to sell the bond at a discount if interest rates on comparable bonds have increased to 7 percent since the purchase date.

This overview in basic bond language is intended to enhance the ability of non-professional investors to better understand the dynamics of fixed income investing and communicate with their investment advisor.

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