

READING THE BOND TABLE – CALCULATIONS ON EXAM 3

Let's look at the GM bond that is highlighted in Figure 6.4, pg. 245. I want you to be able to determine or calculate, as well as interpret, several items related to the bond quote table.

1. **Coupon Rate** is just the interest rate the borrower agrees to pay as a percent of the par value, or principal, or face value of the bond. Since the par value is normally \$1,000, the coupon rate can be used to get the dollars of interest the investor should receive per year. The coupon rate is found immediately to the right of the name of the issuing company. In our case it is 7%. I may ask for the **dollars of interest per year or the dollars of interest per six months**.

Since $\text{Coupon Rate} = \text{\$/Interest} / \text{Par Value}$, and since Par Value is generally \$1,000 on corporate bonds:

$$\text{\$/Interest} = \text{Coupon Rate} \times \text{Par Value}$$

$$\text{\$/Interest} = 0.072 \times \$1,000$$

$$\text{\$/Interest} = \$72$$

So, every six months you should get a check for $\$72 / 2 = \36 .

2. **Not in table: Current Yield**. In other words, forgetting about any price gains or losses you might experience with holding this bond as an investor, what interest rate would you make for a year if you bought the bond at its **current market price** and held it a year?

$$\text{Current Yield} = \frac{\text{Coupon Rate}}{\text{Current Market Price}}$$

You can use the % coupon rate (listed to the immediate right of the company name) and the % bond price (listed in the CLOSE column) to get the current yield, **or** you can convert the coupon to \$ and the price to \$ and do the calculation. It is faster to do it using the percentages, since they are given in the bond quotation table:

Current Yield = $7.2 / 103.143 = 0.0698060$ or 6.98%. I would make almost 7% per year in interest buying and holding the bond if GM keeps making its interest payments. Notice that this does not account for any price changes that may occur with this bond.

3. **EST \$ VOL (000's)**, far right column is the number of individual bonds that were bought and sold for the date indicated. It is in 1000s, not in 100s, as would be the case for stock. 76,419 individual GM bonds were bought and sold on Tuesday, May 18, 2004 (this is the WSJ from Wednesday, May 19).
4. **LAST PRICE** is bond quote, which is in percent (of par) form. To get it in \$, put the bond quote it in decimal form and multiply that it by \$1,000. Or, as a shortcut, move the decimal place one place to the right. Here, that would be \$1031.43, since the percent quote is 103.143.
5. **MATURITY** is the day on which the issuer will repay the principal. The bond investor has been collecting interest since the bond was first sold, or issued. On this date, the investor will get his or her par value, or principal, back from the issuer. This amount is \$1,000 in about every case, so we will assume it is always \$1,000. In our example, these GM bonds mature on January 15, 2011.

6. **LAST YIELD** is the yield-to-maturity for the investor that buys the bond today and holds it until it matures. It is a *comprehensive yield measure*, in that it reflects not only the interest but also the capital gain or loss that the investor should earn on the bond. In our example, it is 6.606%. So, per year, the bond investor would lose about \$4.49 (= \$31.43 dollar loss / roughly 7 years). This causes the yield-to-maturity to fall below the current yield of 6.98%. This yield-to-maturity is the single most important yield measure, and is the one most closely associated with “required return” on a bond.
7. ***EST SPREAD** is the amount of additional yield (yield-to-maturity) the investor will earn per year on this bond compared to a U.S. Treasury bond or note of about the same maturity. To know which Treasury note or bond is being used for comparison purposes, see the column labeled **UST**. In our example, that is the 10-year Treasury note. Here, EST SPREAD is 187. That is measured in “basis points,” which are 1/100 of 1%. So, 100 basis points = 1%. $187 / 100 = 1.87\%$, therefore. This is the additional yield, per year, one requires to move out of risk-free Treasuries into risky GM bonds of about the same maturity.

There is one calculation that you will be expected to be able to do related to the Estimated Spread.

What is the benchmark Treasury’s yield-to-maturity?

To answer this, subtract the EST SPREAD from the LAST YIELD:

Treasury YTM = LAST YIELD - EST SPREAD

Treasury YTM = 6.606 - 1.870

Treasury YTM = **4.736%**.