

# Bond Price & Yield Tool

This menu allows you to calculate annual or semi-annual coupons bonds with actual calendar or 360 day per year. To show it, touch the “**FIN**” button in the main menu and select the “**BOND**” tab.



Key	Action
[A/A] [30/360]	Set the bond calendar type to “Actual” or “30/360”.
[SEMI] [ANN]	Set the bond type to Annual or Semi-Annual coupons.
[Settlement]	Stores the bond settlement (purchase) date in the current date format (M.DY, D.MY or Y.MD).
[Maturity]	Stores the bond maturity or call date in the current date format (M.DY, D.MY or Y.MD).
[CALL]	Stores the Call price per \$100 face value.
[CPN%]	Stores the bond annual coupon rate as percentage.
[PRICE]	Stores or calculates the bond prices per \$100 face value.
[YIELD%]	Stores or calculates the bond yield to maturity or yield to call date as an annual percentage.
[ACCR]	Calculates the interest accrued from the last coupon payment date until the settlement date per \$100 face value.

The **[PRICE]** or **[YIELD%]** buttons calculates the value if the immediate previous key pressed was one of the keys in this tool. See the examples below for a better understanding.

To enter dates (Settlement and Maturity) use the current date format indicated in the status bar (M.DY, D.MY or Y.MD). The following examples assumes “**M.DY**” date format.

### **Example 1: Price & Yield of a Bond**

What price should you pay on August 10, 2003 for a 6¾% U.S. Treasury bond that matures on May 1, 2018 if you wish a yield of 8⅜%? The calendar basis is actual and the coupon payments are semi-annually.

### **Solution: (ALG calculation mode, M.DY date format)**

<b>Keystrokes</b>	<b>Description</b>
<b>[A/A]</b> <b>[SEMI]</b>	Sets the calendar to <b>Actual</b> . Sets the bond payment period to <b>Semi-Annual</b> .
8.102003 <b>[Settlement]</b>	Input the settlement date. <b>SETT = 08/10/2003 Sun</b>
5.012018 <b>[Maturity]</b>	Input the maturity date. <b>MATU = 05/01/2018 Tue</b>
6.75 <b>[CPN%]</b>	Input the annual coupon rate. <b>CPN% = 6.75</b>
8.375 <b>[YIELD%]</b>	Input the desired yield. <b>YIELD% = 8.38</b>
<b>[PRICE]</b>	Calculates the bond price. <b>PRICE = 86.38</b>
<b>[ + ] [ACCR]</b>	Adds the bond price and the accrued interest. <b>86.38 + 1.85</b>
<b>[ = ]</b>	Calculates the net price. <b>Result = 88.23</b>

Suppose that the market quote for the bond is 88¼. What yield does it represent?

Keystrokes	Description
88.25 [PRICE]	Input the market quote. <b>PRICE = 88.25</b>
[YIELD%]	Calculates the bond yield to maturity. <b>YIELD% = 8.13</b>

### **Example 2: A Bond with a Call feature**

What is the price of a 6% corporate bond maturing on March 3, 2022 and purchased on May 2, 2003 to yield 5.7%? It is callable on March 3, 2006 (a coupon date), at a value of 102.75. What is the yield to the call date? Use a 30/360 calendar with semi-annual coupon payments.

### **Solution: (M.DY date format)**

Keystrokes	Description
[30/360] [SEMI]	Set the bond calendar to <b>30/360</b> calendar. Set the bond type to <b>semi-annual</b> coupons.
5.022003 [Settlement]	Input the settlement date. <b>SETT = 05/02/2003 Fri</b>
3.032022 [Maturity]	Input the maturity date. <b>MATU = 03/03/2022 Thu</b>
6 [CPN%]	Input the annual coupon rate. <b>CPN% = 6.00</b>
5.7 [YIELD%]	Input the desired yield. <b>YIELD% = 5.70</b>
[PRICE]	Calculates the bond price. <b>PRICE = 103.43</b>
3.032006 [Maturity]	Change maturity date to <b>call date</b> . <b>MATU = 03/03/2006 Fri</b>
102.75 [CALL]	Input the <b>call value</b> at call date. <b>CALL = 102.75</b>
[YIELD%]	Calculates yield to call date. <b>YIELD% = 5.58</b>

### **Example 3: A Zero-Coupon Bond**

Calculate the price of a zero-coupon, semi-annual bond using a 30/360 calendar basis. The bond was purchased on May 19, 2003 and will mature on June 30, 2017, and has a yield to maturity of 10%.

#### **Solution: (M.DY date format)**

<b>Keystrokes</b>	<b>Description</b>
<b>[30/360]</b> <b>[SEMI]</b>	Set the bond calendar to <b>30/360</b> calendar. Set the bond type to <b>semi-annual</b> coupons.
5.192003 <b>[Settlement]</b>	Input the settlement date. <b>SETT = 05/19/2003 Mon</b>
6.302017 <b>[Maturity]</b>	Input the maturity date. <b>MATU = 06/30/2017 Fri</b>
100 <b>[CALL]</b>	Input the <b>call value</b> at call date. <b>CALL = 100.00</b>
0 <b>[CPN%]</b>	Input the annual coupon rate. <b>CPN% = 0.00</b>
10 <b>[YIELD%]</b>	Input the desired yield. <b>YIELD% = 10.00</b>
<b>[PRICE]</b>	Calculates the bond price. <b>PRICE = 25.23</b>