Bonds Calculation

The calculator enables you to solve for bond price (PRICE) (and the interest accrued since the last interest date) and the yield to maturity (YTM) in accordance with the Securities Industry Association's recommendations.

The Bond calculations are done assuming a semiannual coupon payment and using an actual/actual basis calendar (such as for U.S. Treasury bonds and U.S. Treasury notes). In accordance with market convention, prices are based on a redemption (par) value of 100.

The keys involved in the Bonds Calculation are:

Key	Description
i	Store the bond annual yield to maturity rate in percent.
PV	Stores the quoted bond price at the settlement (purchase) date.
PMT	Stores the bond annual coupon rate in % of the face value.
f PRICE	Calculates and displays the bond price in the settlement date with the given annual yield in i and stores the calculated price in PV. Also calculates the interest accrued since the last interest date and stores it in the stack-Y register.
f YTM	Calculates and displays the bond yield given a quote price in PV and stores the calculated yield in i.

After solving a bond problem, the FV register contains the redemption value plus the annual coupon rate percentage divided by two, and the n register contains the days from settlement date to the next coupon date divided by the number of days in the coupon period in which settlement occurs.

As a special feature, the RLM-12 Finance Center has an additional tool to calculate bonds considering Actual or 30/360 days calendars and with Annual or Semi-annual coupons. To show it, expand the calculator pressing the OPT key and in the "Options Selection Menu", select the "Bond Calculation" option.

Example : Bond Price

What is the Price in April 28,2011 for a 6,75% U.S. treasury bond that matures in June 4,2025 for a yield of 8.25%?
(M.DY mode)

Keystrokes	Description
Type"8.25" i	Type the desire bond yield and press " **i** ".
Type"6.75" PMT	Type the annual coupon rate and press "**PMT**".
Type"4.282011" ENTER	Type the settlement date and press "ENTER" (or " = " in ALG mode).
Type"6.042025"	Type the maturity date.
f PRICE	Calculates Bond price as a percent of par. **Result = 87.62**
x⥮y	Show the Accrued interest since the last coupon before the purchase date. **Result = 2.69**
In **RPN**: + In **ALG**: + x⥮y =	Total price including accrued interest. **Result = 90.31**

Example : Bond Yield

The market is quoting 120.5% for the bond described in the preceding example. What yield will that provide?.
(M.DY mode)

Keystrokes	Description
Type"120.5" PV	Type the desire bond yield and press " **i** ".
Type"4.282011" ENTER	Type the settlement date and press "ENTER" (or " = " in ALG mode).
Type"6.042025"	Type the maturity date.
f YTM	Calculates Bond price as a percent of par. **Result = 4.74%**