

Input - Bond Amounts, Coupons, Yields, Prices

The Bond Amounts, Coupons, Yields, Prices, Maximum Debt Service and Takedowns screen is where you enter information about each bond maturity. The entries on this screen can be individually entered or a range of items can be changed with the Change Selection text boxes at the top of the bond maturities grid.

The screenshot shows the 'Micromuni Debt' application interface. At the top, there is a navigation bar with 'Input', 'Load', 'Calculate', 'Report', 'Data / Modify', 'Products', and 'Logout'. A dropdown menu is open under 'Input', showing options: 'General Bond Information', 'Amounts, Coupons, Yields, Prices' (highlighted), and 'Call Options (Bond Pricing)'. Below the menu, there are buttons for 'Save', 'Add Row', and 'Cancel Changes'. The main area is titled 'BOND MATURITIES' and contains a grid with columns: 'Maturity Date', 'Bond Type', 'Coupon', 'Yield', 'Price', 'Max Debt Service', and 'Takedowns'. The grid contains 20 rows of data, all with a 'Standard' bond type, a coupon of 0.000000, a yield of 0.000000, a price of 100.000000, and a max debt service of 100,000,000.00. A note at the top of the grid states: 'Note: You must press the Save Button to complete changes, inserts and deletions.' At the bottom left, the URL 'https://micromuni.net/Debt/BondAmounts/' is visible, and at the bottom right, it says '1 - 20 of 20 items'.

Maturity Date	Bond Type	Coupon	Yield	Price	Max Debt Service	Takedowns
07/01/2021	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2022	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2023	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2024	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2025	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2026	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2027	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2028	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2029	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2030	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2031	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2032	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2033	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2034	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2035	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2036	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2037	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2038	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2039	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000
07/01/2040	Standard	0.000000	0.000000	100.000000	100,000,000.00	0.000

This screen may consist of multiple pages, each with columns of information for each row. You enter information about each bond maturity on a different row. Headings at the top of each column on this screen tell the types of information to enter; the headings are explained in this section.

Date

If you have completed the General Bond Information Screen, this column will already contain the bond's maturity date. Micromuni calculates the series of dates from the first maturity date, last maturity date, and principal frequency defined on the General Bond Information Screen (unless the Bond Maturity Frequency was set to Irregular). If the Bond Maturity Frequency was set to Irregular on the General Bond Information Screen, Micromuni will not generate these dates, but allow you to Add Rows of new bond maturity dates as well as allow you to change any previously generated date with an irregular final maturity date. Micromuni will then calculate the last bond interest payment correctly.

Amount

You can enter the principal amount for each bond maturity or Micromuni can Solve (via the Solve menu item) for each bond maturity amount based on the Solve Type you select and the various coupons you enter on this screen. You may either enter the bond maturity amounts manually or use the Solve for Bonds command to calculate them. Various Bond Solutions are available for calculating Level Debt Service (each fiscal year has level debt service within a bond denomination), Accelerated Debt Service (front loaded bonds), Deferred Debt Service (back loaded bonds) and other bond solutions that will be described in another section.

Bond Type

For each maturity, the default bond type is set to Standard for Current Interest Bonds. The Bond Types available in the dropdown list are Standard, Term Bond, Bullet Bond and CAB.

Standard Current Interest Bond.

Term Bond. All Term Bonds with the same coupons and yields belong to the same sinking fund. When priced, all Term Bonds in the same sinking fund are priced using the lowest price in the sinking fund.

Bullet Bond A bullet bond is a debt instrument whose principal is paid at maturity and cannot be redeemed early, which means that they are not callable.

CAB Capital Appreciation Bond. CABs are discounted bonds that pay no interest until maturity, but interest is compounded until the bond maturity date. CABs are redeemed at maturity in bond denominations. For example: a \$5,000 CAB, with a yield of 2.0%, may be priced at 67.896 (bond production of \$3,394.80) and the interest from Delivery to the final maturity date will be \$1,605.20. The bond accrues interest until the final maturity date. Moreover, the interest is compounded until the final maturity date, when the bond is redeemed at \$5,000.

Additional Bond Types will be available (Term CABs, Convertible CABs, Term Convertible CABs, fixed Maturity Bond Amounts for each bond type)

Coupon

For Current Interest Bonds and Term Bonds, enter the interest rate. For Capital Appreciation Bonds (CAB's), leave this field blank.

Yield

Enter the yield (rate of return) derived from the relationship between the bond's face value and its interest rate. Micromuni uses the yield to determine the gross production realized from this maturity. Micromuni uses the yield value and the interest frequency from the General Bond Information Screen to determine the compounded interest earned for CAB's.

Price

When you initially completed the General Bond Information Screen, this price field will have a default price of 100%. Leave the value as it is or enter the price of the bond at delivery (closing) as a percentage of the par amount of bonds. If you entered a yield value, Micromuni will use the Coupon and Yield to determine the Bond Price and Bond Production. If you entered a bond price value and the yield field is zero, then Micromuni will use the Bond Price to calculation Bond Production and Micromuni will determine the yield to maturity.

Max Debt Service

Once you have completed the General Bond Information Screen, this column will already contain the default entry of 100,000,000. This is the default maximum allowable bond debt service per fiscal maturity period. You can change this value to your desired maximum total bond debt service per period. Micromuni uses this constraint when Solving for Bond Amounts under the Calculate Menu, like Accelerated (Front Loaded Bonds), Deferred (Back Loaded Bonds) etc. Some Bond Solutions do not use the Max Debt Service constraint, like Level Debt Service, Equal Principal, etc.

Takedowns

Enter the take down per thousand dollars for each maturity.