

Financial Services Laboratory
Lesson MATH001

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Topic: Fixed Income & analysis
Learning objective: Download fixed income data

Students are to extract fixed income data to validate models.

- Open Thomson One by double clicking on the Thomson ONE icon.
- Open Bond, Bond Search, Gov./Agencies
- Click the boxes for Treasury Bond, Treasury Note, Treasury Bill (see example below)

The screenshot shows the Thomson ONE software interface. The title bar reads "Thomson ONE - [Bonds > Bond Search]". The menu bar includes File, Edit, View, Favorites, Tools, Window, and Help. Below the menu bar is a navigation pane with categories: Markets, News, Charting, Equities, Derivatives, Bonds, and Current. Under the Bonds category, there are sub-categories: Company, Fundamental, Research, Portfolios, Earnings, and Owners. The main content area is titled "Bond Search" and has several tabs: IFR, Benchmarks, US Treas, Libor, Com'l Paper, and MSCI. The "Gov./Agencies" tab is selected. Below this, there are sub-tabs: Corporates, Municipals, and Gov./Agencies. The "Gov./Agencies" sub-tab is active, showing a "Government/Agencies Search" form. The form includes fields for Issue ID, Issuer, Coupon (%), Maturity Date, Price, and Yield (%). The Maturity Date is set from 08/01/05 to 08/01/36. There are checkboxes for Treasury Bond, Treasury Note, Treasury Bill, Interest Strip, US Agencies, Supranationals, Foreign Agencies, Inflation Indexed Security, Global, Domestic, Include Inactive, and Include Defaulted. A "Reset" button and a "Saved Searches" field are also visible.

Enter Maturity Dates from 8/01/05 to 8/01/36. Click GO.

You should now have the full Treasury yield curve of issues. Right click on the data and choose SELECT ALL. Right click again and choose COPY. Open EXCEL and choose EDIT-PASTE.

Issue ID	Issuer Name	Original Issue Size(000's)	Cpn	Issued Date	Maturity	Moody/S&P	Fitch	Call/Put/Sink	Price Source	Price	Yield
912795VM0	UNITED STATES TREASURY DEPARTMENT	23,191,516.00	0.000	02/14/05	08/18/05	Aaa/AAA	AAA	NC/NP/NS	IDC EOD	100.000	1.629
912795VN8	UNITED STATES TREASURY DEPARTMENT	24,221,870.00	0.000	02/22/05	08/25/05	Aaa/AAA	AAA	NC/NP/NS	IDC EOD	99.939	2.762
912828BJ8	UNITED STATES TREASURY DEPARTMENT	30,589,929.00	2.000	08/27/03	08/31/05	Aaa/AAA	AAA	NC/NP/NS	IDC EOD	99.949	3.311
912795VP3	UNITED STATES	24,243,909.00	0.000	02/28/05	09/01/05	Aaa/AAA	AAA	NC/NP/NS	IDC	99.878	2.996

In EXCEL, you should click on the upper left corner of the spreadsheet to highlight the spreadsheet and then choose NO FILL from the paint bucket icon (otherwise the spreadsheet looks black).

Repeat the exercise with Interest and Principal Strips.

Corporates	Municipals	Gov./Agencies		
Bond Search	Bond Desc.	Ratings	Redemption	
Governments/Agencies Search				
Issue ID	Issuer	or		
Coupon (%)	From	To	Price From To	
Maturity Date	From	To	Yield (%) From To	
<input type="checkbox"/> Treasury Bond	<input type="checkbox"/> Treasury Note	<input type="checkbox"/> Treasury Bill	<input checked="" type="checkbox"/> Principal Strip	
<input checked="" type="checkbox"/> Interest Strip	<input type="checkbox"/> US Agencies	<input type="checkbox"/> Supranationals	<input type="checkbox"/> Foreign Government	
<input type="checkbox"/> Foreign Agencies	<input type="checkbox"/> Inflation Indexed Security			
<input type="checkbox"/> Global	<input type="checkbox"/> Domestic	Reset	Save	GO
<input type="checkbox"/> Include Inactive	<input type="checkbox"/> Include Defaulted	Saved Searches		

Plotting Yield Curves

- Create a column for maturity dates and a column for yields
- Sort the data (Data-Sort on the toolbar) using maturity date (ascending)
- Use the charting icon in EXCEL to create an XY scatter diagram of maturity dates (x-axis) and yields (y-axis)
 - You will need to change the minimum x-axis value to equal today's date
 - You may want to remove callable bonds (C/NP/NS) versus noncallable (NC/NP/NS). C=call, P=put, S=sinking fund