

# Formula for Success

Use Bloomberg API to export data into an Excel spreadsheet and customize your analysis. **By Laura Price**

◀ EXPORTING BLOOMBERG DATA into a Microsoft Excel spreadsheet is one of the most-effective ways to manipulate and customize the data you require. Bloomberg's application programming interface (API) enables you to incorporate real-time, static and historical data into Excel and other applications.

To create customized spreadsheets with Bloomberg Professional service data, you can use either a wizard or the Bloomberg Function Builder. To use the wizard, click on the Bloomberg menu in an Excel spreadsheet and select the Import Data option to open the Bloomberg Data Wizard. Click on the first icon, Market, Reference, Analytical, Data Sets, to export real-time or current data or sets of data. You can enter a specific stock ticker such as *GOOG US*, for Google Inc., in the SECURITY IDENTIFIER field or choose stocks from a list of the world's main equity indexes. For stocks in an index, click on the drop-down menu next to From and choose Equity Indices. Select your index from the drop-down

menu next to Indices. This will fill the Available Securities box with stock symbols; you can click on Add All or double click on specific companies.

CLICK ON NEXT to choose the type of data you wish to retrieve for the securities you have selected. You can click on the Categories tab or enter a key word such as *Price* or *Dividend* in the SEARCH TEXT field and click on Search. Either method returns a list of categories, such as Last Price, Price Earnings Ratio or Dividend Payout Ratio. A green and red arrow symbol next to a category in the Type column indicates real-time data. The standardized mnemonic for the data is in the right-hand column. Select an item to view details on the type of data it will return, and click on Add for inclusion in your spreadsheet. Then click on Next to see layout options for your data. For example, under Field Orientation, select Vertical to list the companies across the columns of your spreadsheet with values underneath. Once you've chosen your layout, click

on Finish and watch the spreadsheet populate with data. By clicking the Historical End of Day icon when you open the Bloomberg Data Wizard, you can fill your spreadsheet with historical data, such as the end-of-day value for a stock's dividend yield covering a time period you select.

for Bloomberg data. They can be searched by choosing Field Search from the Bloomberg menu in Excel, which brings up a search screen similar to the one in the Bloomberg Data Wizard. Once you know your data-field mnemonics, choose Function Builder from the Bloomberg menu. Select BDH for Bloomberg Data History, and click on OK. Now, enter a security ticker such as *VALE5 BS Equity* for Brazil's Cia Vale do Rio Doce in the SECURITY field, or click on the icon at the right of the SECURITY field to choose tickers from an existing list of companies in your Excel spreadsheet. In the box next to Field, enter the mnemonic for the desired field, such as *CUR\_MKT\_CAP* for the company's market capitalization. In the START DATE field, enter the earliest date for your data, in quotation marks, such as "14/01/2007" or "01/14/2007," depending on the regional settings of your PC. Enter an end date or, to use the current date, enter an empty set of quotation marks. When these four fields are filled in, click OK to see your spreadsheet populated with the selected data or click Option 1 to customize your data.

Bloomberg's customization options allow you to change the currency, for example, or adjust the days that are displayed. Click on Option 1, and a list of parameters will appear to the right. Click on Currency, then on the desired code, such as USD, and finally on OK. Now, scroll down and click on Option 2 and then on Days to pick from options such as active trading days, all weekdays including holidays or all calendar days including weekends. If you choose either of the latter options, click on Option 3 and then on Fill to specify what message you want to see in the corresponding cell if the security didn't trade on a particular day; one option allows a custom message.

INDEX TICKER	NAME	LAST PRICE	CUR	MKT CAP
ACES4 BS Equity	ACESITA SA-PREF	76.25	563962000	
ALL11 BS Equity	ALL AMERICA LATINA LOGISTICA	22.39	12907450000	
AMBV4 BS Equity	CIA DE BEBIDAS DAS AME-PREF	130.9	62805880000	
ARC25 BS Equity	ARACRUZ CELULOSE SA-PREF B	12.35	14026850000	
BBAS3 BS Equity	BANCO DO BRASIL SA	=BDP(FC10,E95)		
BBDC4 BS Equity	BANCO BRADESCO SA-PREF	47.7	55610980000	
BRAP4 BS Equity	BRADESPAR SA -PREF	85.5	14979890000	
BRK06 BS Equity	BRASKEM SA-PREF A	16.8	7518256000	
BRT04 BS Equity	BRASIL TELECOM SA-PREFERENCE	17.19	13089670000	
BRTF3 BS Equity	BRASIL TELECOM PART SA	46.2	12584530000	
BRTF4 BS Equity	BRASIL TELECOM PART SA-PR	27.8	12584530000	
BTCW3 BS Equity	BTV.COM GLOBAL DO VAREJO	73	8272653000	
BVRF2 BS Equity	BVRF SA-PREF	3.76	1000010000	

## >Index Members

The stocks in Brazil's Bovespa Index can be pulled into an Excel spreadsheet. Click on a cell to see the formula that supplies a specific value for it.

Data for companies, currencies, commodities and other securities can also be exported to Excel using a Bloomberg data history formula. Start by finding the mnemonic for the specific data points you want to export. There are more than 10,000 unique identifiers

# Aggregated Debt Holdings

Type **AGGD <Go>** to find the largest holders of debt issued by a company or government. By Damiano Sasso

Another way to put a simple set of Bloomberg data directly into a spreadsheet is to list the stock tickers down one column and type field mnemonics across the row just above and to the right of the topmost ticker. Tickers should be typed with their exchange code and the word *Equity*, such as **IBM US EQUITY**. Then click into the cell directly above the list of tickers, choose **Populate Table** from the Bloomberg menu and the linked data will appear. This method can be used only for current or real-time data.

BLOOMBERG API ALSO allows you to export sets of data, such as the information that appears on a company's Bloomberg Description (DES) page or all of the members of an equity index. For this type of data export, use the **Function Builder** as before but select **BDS** for Bloomberg Data Sets in the **Insert Function** box. Enter **UKX Index** in the **SECURITY** field to use the members of the FTSE 100 Index, for example, and then enter the mnemonic **INDX\_MEMBERS** in the box next to **Field**. When you use the Bloomberg API, your spreadsheet is linked to the Bloomberg Professional service and will update whenever you open or refresh it. Future changes in the FTSE 100, for example, will be reflected. ▶

For assistance with writing Bloomberg API formulas or using the wizard, select **Help** from the Bloomberg menu in Excel or press **<Help>** twice on your Bloomberg terminal to send a question to the Bloomberg Analytics help desk.

## Readymade Spreadsheets

To access Excel spreadsheets with ready-to-use data links, type **DOCS <Go>**, enter **DTAPI** in the **KEYWORD SEARCH** field and press **<Go>**. Click on the document titled **Bloomberg Estimate Chart** for a spreadsheet that compares reported financial data with analyst estimates. Click on **Company Comparison Sheet** for a spreadsheet with stock price and earnings data for a list of companies you can modify. Type **API <Go>** to view a page of links with more information and support materials for users of the Bloomberg API.

◀ THE NEW AGGREGATED Debt (AGGD) function displays institutional holdings information for government and corporate debt. Previously, holdings data could be accessed only by using the **Holdings Search**

(PHDC) function for individual debt issues. AGGD displays institutional investors with the most exposure to the debt of a specific corporation or government. It enables bond salespeople to locate potential buyers for debt securities and gives investors a view of the risk associated with a specific institution and its funds.

To view aggregated debt holdings for Ford Motor Co., for example, type **F US <Equity> AGGD <Go>** or run **AGGD** after pulling up any of Ford's bonds. The resulting screen will show the largest holders of Ford debt by both total value of the debt held and percentage outstanding. Aggregated debt holdings can be displayed for the parent company and its subsidiaries, or the subsidiaries and affiliates can be excluded by clicking on the arrow to the right of **Include**. Click on the arrow to the right of **Sort By** to show the institutional holders in descending order based on one of four options: amount, name, latest change and percentage of change. Near the top of the screen, the number of bonds Ford has outstanding and the total number of unique holders of those bonds are listed.

To see the bonds an institution owns, click on the holder. For example, on the Ford screen, click on **Franklin Advisers Inc.** to display the coupon and maturity for each debt issue that firm holds and its Standard & Poor's credit rating. This

DEBT HOLDER	Amount (USD)	% Out	Latest Chg
1) FRANKLIN ADVISORS INC	2,828MLN	3.95	+26,783
2) PHDC ADVISORS LP	1,116MLN	1.62	+383,957
3) CAPITAL RESEARCH AND MANAGEMENT	902,840	1.26	+36,737
4) DEUTSCHE BANK AG	816,679	1.14	+691,967
5) DODGE & COX, INC	693,425	0.96	+12,100
6) FIDELITY MANAGEMENT & RESEARCH	575,017	0.80	-89,008
7) VANGUARD GROUP INCORPORATED	347,925	0.49	+15,650
8) LOUIS SAVALES & COMPANY LP	339,667	0.47	-5,855
9) WESTERN ASSET MANAGEMENT COMPAN	289,892	0.40	+6,380
10) GLG PARTNERS LP	275,000	0.38	+10,500
11) CAPITAL INVESTMENT	200,000	0.28	+1,000

### >Who Holds Ford Motor Debt?

Type **F US <Equity> AGGD <Go>** to find the biggest holders of Ford bonds. Click on the names of holders to see what issues they own.

debt holder detail screen also shows the latest change in terms of position and percent for a bondholder.

On the debt holder detail screen, click on a bond to display the bond owner screen, which details the position of each fund managed by the institutional investor. Click on a fund listed on this screen for a menu that lets you display its holdings or access a menu of portfolio analytics functions that will appear on another Bloomberg Professional service screen. To display total holdings for the debt issue, click on **Bond** on the bond owner screen and select **Holding Search** in the menu that appears. The **Holdings Search** screen will show where each fund ranks among all of the holders of that issue. Investors can identify the holders that are adding or disposing of the bond and can also compare the types of funds investing in that particular issue. ▶

Press **<Help>** twice to send a question to the Bloomberg Analytics help desk.