

A Bloomberg Terminal Primer¹

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¹This primer is mainly designed for undergraduate and master students that have never used a Bloomberg terminal, and that wish to learn quickly the first steps required to start using one. Note that this primer can be freely distributed for educational use. It is only occasionally updated, and does not necessarily reflect the latest functions and information available on Bloomberg terminals. The latest version is available on my [personal webpage](#). Please, contact me if you find any errors or imprecisions, or if you any have suggestions for improvement.

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1 Introduction

Bloomberg is a platform that provides real-time and historical market data (e.g., stock prices, bond yields, GDP and unemployment data, news, etc.). According to the New York Times, "Bloomberg is the web that weaves together much of the global financial ecosystem." In this short note I will describe some **basic** functions that you can use to start using Bloomberg. **LUISS University**'s students can find information about how to locate and access Bloomberg terminals on the [library's webpage](#). All the functions illustrated below must be entered in the Bloomberg command line on the top of a typical Bloomberg window. A great learning tool on Bloomberg is given by the Bloomberg Market Concepts < BMC >. This is an 8 hour self-paced e-learning course that provides an introduction to financial markets. BMC consists of 4 modules (economic indicators, currencies, fixed-income and equities). At the end of the course, you can get a certificate of completion. Note that the course is free using a terminal, and costs \$149 on the web². Once you take the test, you can add your cv to the Bloomberg platform in order to make it available to all the users (and potential employers). For example, check < BTS >, or Bloomberg Talent Search. Potential employers can search users according to many different criteria and possibly contact them. You can also search people using the Bloomberg < PEOP > function. The latter could be very useful to network when searching for a job.

2 Login

The first time you use a Bloomberg terminal, you need to create a user account. You will need your cell-phone to activate your personal account.

3 General overview of Bloomberg functions

Bloomberg is first of all an amazing source of news. To search for news, type < NI > and a subject title, for example EQUITY, ITALY, etc. Note that the Bloomberg command line works much alike the Google auto-complete function, providing suggestions for your search. Note that you can customize the news view: for example, order news by time, relevance, or most read; select source; etc. For advanced news search you can type < NSE >, and then enter your search criteria. Alternatively, you can type < TNI >.

²Note that < BMC > replaced < BESS >, a test used to evaluate your knowledge after an online tutorial. Also the BAT test is no longer available on Bloomberg.

To look for charts and summary moves for major indices in each market:

- < WEI >: World equity table. Note that if you click on the small chart icons next to each index the corresponding charts will pop up. The small icons provide an immediate view of the last two days and intraday movements of the corresponding indices. By clicking on the icons we can also modify the length of the sample. You can edit the time-frame of the table. The default window will show the main indices for the Americas, EMEA (i.e., Europe, Middle East and Africa), and Asia/Pacific. For each index, the Bloomberg window will show the value, the net change, the percentage change, the day/time at which the index has been computed, the year to date value percentage change and the currency adjusted (i.e., local currency) year to date value in percentage change. You also have the option to add additional information regarding movers, volatility, ratios, and futures. Note also a general color-convention used in Bloomberg: red indicates a price below the prior day trading day's close price; a green a price above the prior day trading day's close price. As a general rule, just move the cursor on one of the headers (e.g. Net Chg, %Ytd, etc.) to see a short explanation of the corresponding variable.
- < WB >: Government bond table. Note that if you click on the charts under the "yield" column, the corresponding charts will appear. Recall that there is an inverse relation between bond prices and yields. You can edit the time-frame of the table. From the default window, you can click on the spreads or curves tab to obtain data on yield spreads and term structure of interest rates respectively. For the spread, you can choose the term of reference (i.e., the benchmark).
- < GLCO >: Global commodities. This function provides a overview for energy, metals, agriculture, etc.

To quickly find information on economic statistics for different countries and markets:

- < ECO >: Economic data releases for the week, by region. You can edit the time-frame, the country/region, and by clicking on each economic release you can get more information, including charts and related news. A very useful piece of information, for each news release, is its expected value coming from a survey of experts. Market prices should be affected only by *new* information, not by the release of information that is already public (i.e., all available information is already incorporated in market prices). Therefore, the difference between the actual value of a given release, and its expected value, is a *news shock*. News shocks should affect market prices. For example,

you can try selecting one economic release (say, the "adjusted retail and food services sales"), and by clicking on it you will be able to read the release time, the data that is expected by experts, the data from prior releases, together with a plot of the historical time-series of the actual index and the corresponding survey values.

- `< ECST >`: World economic statistics. Start by selecting the country, or region, then select the statistic you are interested in. As usual, you will get news and general information on the selected statistic, and a chart.
- `< EMEQ >`: Emerging market equities. This table is similar to the one obtained with `< WEI >`, but it refers to emerging markets.
- `< WCR >`: World currency exchange rates. The default currency is the USD. You can edit the default currency.
- `< ECOW >`: Economic Data Watch. For each country, data on GDP, inflation, the labor market, the housing market, consumer confidence, etc.
- `< ECFC >`: Economic Forecasts. This function returns, for different countries, the forecasts on several key macroeconomic variables (i.e., GDP and its components, price indices, etc.).
- `< WIRP >`: world interest rate predictor. It provides interest rate probabilities, at different dates and for different countries, based on futures market.

4 Specific Bloomberg functions

In what follows, I provide a brief description of selected useful Bloomberg functions.

4.1 How to look for a specific stock?

Suppose you have in mind a company, say FCA Group (i.e., the Fiat-Chrysler Group), and you want information about this company. You can start by entering the company's name in the command line. The auto-complete will help you with your search. In the list that will appear, select the company you are looking for under the heading "securities." After you hit `< GO >`, the FCA company page will appear, and at top left you will see the ticker, or security identifier. Normally the ticker is a 3 character abbreviation, followed by a 2-digit location indicator. For example, for Fiat-Chrysler Group is FCA IM. Note that the ticker

can also have more than 3 characters: for example, Google's ticker is GOOG³. In the ticker page, just click on one of the options to get the corresponding information. The main options (i.e., functions) are:

- < DES >: it provides a brief description of the company, the market capitalization, top management, 1-year return, etc.
- < CN >: it provides news for the company. Note that you can narrow the news search using the box on the top of the page.
- < GP >: it provides the price chart of the stock. You can edit the time-frame, add benchmark indices or stocks, etc.
- < GPL >: it provides the price chart of the stock on a logarithmic scale. You can edit the time-frame, add benchmark indices or stocks, etc.
- < RV >: it provides a comparison table with peers: this includes share price, market capitalization, revenue growth, etc.
- < DVD >: it provides dividend information, like payment dates, ratios, etc.
- < FA >: it provides a financial analysis table with balance sheet information.
- < GF >: it provides a graph of financial fundamentals (you can choose the variable you like).
- < HDS >: it provides information on the security ownership, with a list of the major shareholders.
- < PHDC >: it provides the custom ownership search (for example, you can look at transactions of insiders).
- < MGMT >: it provides information on the company management, including bios of top management.
- < EVT >: it provides a list of upcoming reporting dates.

³Google is a particularly interesting example. In fact, since April 2014 the Google stock split in two categories: Google class C shares, with ticker GOOG; and Google class A shares, with ticker GOOGL. Both stocks are traded in the market. GOOG shares have no voting rights, while GOOGL shares have one vote each. Before the stock split, all GOOGLE shares had voting rights. To make things even more fun, there exist Google class B shares, but they are not traded in public markets. Each of the class B shares gives the right to ten votes. These shares are usually held by Google insiders.

Note that these are not the only options available. By clicking on each of the main group functions (i.e., company overview, company analysis, etc.), additional available functions will show up.

4.2 How to search the universe of stocks?

Suppose you are interested in searching for a security that satisfies some criteria of your choice: i.e., it is traded in the US market and the currency is the USD. You can select more stringent criteria: i.e., the security price-to-earning ratio must be below some threshold value, etc. On Bloomberg you can use the function < SECF >, or security finder; or the function < EQS >, or equity screening. The use of both functions is similar: you are required to input the selection criteria. With < EQS > you can easily add customized search criteria. The output of the functions is the list of securities that match your criteria. Suppose now that you found a list of securities that match your searching criteria. You can easily export the list to Excel by dragging the Excel icon on the top right of the Bloomberg window on an Excel file (note: the Excel drag-and-drop feature is common to many other Bloomberg terminal windows).

4.3 How to search the universe of fixed-income securities?

Suppose you are interested in searching a fixed instrument security, rather than an equity security. The function < SRCH >, or fixed income search, is the equivalent of < EQS >. Note that by default Bloomberg searches among the universe of active securities. This is most of the time the right choice if you are, for example, a trader looking for a security to buy or sell. However, suppose you are a researcher and you are interested in building a sample that goes back in time. For example, you want to look at the behaviour of all the bonds issued by the Republic of Italy in the last twenty years. Clearly, many of these bonds have matured and are not active anymore and by using the option "active" you would build a sample that suffers from selection bias. You can include these latter bonds in the search by removing the option "active", in the search criteria. Note that including in your sample "inactive" assets is often useful in order to avoid a *sample selection bias*. For example, if you need to analyze the performance of all the NYSE listed stocks in the last 20 years and you do not include stocks of companies that have gone out of business you will most likely over-estimate the performance of the NYSE stocks.

4.4 How to search for a mutual fund?

Much alike stocks and fixed-income securities, it is very easy to search for a mutual fund on Bloomberg. Simply type < FSRC >, for Fund Screening. You will be able to enter different selection criteria (i.e., fund type, country of availability, etc.) to select the funds you are interested in.

4.5 Fields

A very useful function for the beginner Bloomberg's user is < FLDS >, which opens the Data Field Finder. Insert or look for a security you are interested in, and then just enter key words related to the field you are interested in. Bloomberg will show a list of available fields and you have the option to select those you want info about. By clicking on a specific field Bloomberg will show you a short definition.

4.6 Charts

Suppose you selected the Google ticker GOOG and then entered < GP > to plot the historical graph. It is good practice to save the graph, because in this way you have access to different options that are not otherwise available. For example, a cool option is to click on the flag on the top right of the graph. A side panel will show up that will let you choose a list of events that you can add to the graph: for example, debt offerings, dividends, stock buybacks, or even transactions involving insiders (e.g., top management, existing large shareholders, etc.).

4.7 Indices

A useful function is < MEMB >, that provides the component of an index. For example, if you type < SPX > and then < GO >, and then < MEMB > and < GO > you will see the components of the S&P 500 index: their tickers, names, and index weights.

4.8 Credit risk

In Bloomberg you can find plenty of important data to measure credit risk. If you are interested in credit default swap, just type < CDX >. For credit ratings, you can type < CSDR >.

4.9 News

Bloomberg is an incredible source of real-time and historical financial (and not only) news. To immediately go to the top news, just type `< NI >`. If you type this function and a key word (e.g, Italy, Luxottica, etc.), the auto-complete will suggest different news that might be of your interest. With time, you will learn to use fast commands that suit your needs. For example, suppose you are interested in the main news of the day about the Italian economy, you can type first `< NI IT>`. Further useful codes that you can add after `< NI >` are `ECB` - news about the European Central Bank including main interest rates - and `FED` - news about the Federal Reserve.

4.10 How to build and manage your financial portfolio?

On Bloomberg you can easily build financial portfolios, in order to monitor their performance, evaluate their risk and test them under different scenarios. The starting point is the function `< PRTU >`, which stands for portfolio administration. Under this function, you can create your portfolio by entering the various components: i.e., quantity of cash and different securities. For each security, you will be asked the quantity (e.g., the number of shares you own) and the purchasing price. In order to add a security to your portfolio, you can enter the ticker or the ISIN number in case you know it, or just the security's name waiting for the auto-complete to help. Once the portfolio has been created and properly saved, Bloomberg offers various useful metrics to evaluate its risk and performance. For example, the function `< PORT >` provides the portfolio and risk analytics, with information like the contribution to return of each component, the daily profits and losses, etc. Within the `< PORT >` window, you can also look at measures of risk like the value-at-risk (VaR) and the likely performance under different "stress" scenarios. Also, you can add benchmark portfolios. Additional useful functions that you can choose from once you are looking at a portfolio are:

- `< NPH >`: portfolio news. News related to the components of your portfolio.
- `< PORT HP >`: historical performance.
- `< PORT OP >`: portfolio optimization. This function allows the construction of an optimal portfolio given a set of constraints. It also allows backtesting the performance of the portfolio.
- `< BETA >`: Historical beta. This function estimates the beta of a security, for example a stock, with respect to another stock (i.e., the aggregate market in the CAPM

spirit). The function is highly customizable and returns various statistics to gauge the significance of the regression estimate.

- **< OMON >**: Option monitor using Black-Scholes. This function, applied to a security, returns real-time pricing, market data, and derived data for exchange-traded call and put options.

4.11 Templates

A very useful function is **< XLTP >**: the Excel Template Library. By entering this function and then **< GO >**, you will have access to several Excel templates that perform various tasks.

4.12 Miscellaneous functions

Below you can find additional useful functions:

- **< GMM >**: global macro movers. This function is very used on news broadcast and provides an immediate graphical snapshot of different markets in different countries using colors to highlight the performance. **< ILBE >**: world inflation breakeven rates. ILBE displays breakeven inflation data. Breakeven rates are the difference between an inflation-index bond and a regular bond. Standard maturity is 10-year. Therefore, for a rate of inflation equal to the breakeven rate, the investor should be indifferent between the nominal and the inflation-linked security.
- **< MRUL >**: create rule for Bloomberg email and messaging service. This function is very useful to forward, for example, Bloomberg email to a different account (e.g. gmail, yahoo, etc.).
- **< GRAB >**: to send by email an attachment.
- **< BI >**: business intelligence.
- **< BMAP >**: Bloomberg commodity map: plot world map, and identify reserves of different commodities (e.g. oil, gold, etc.), mines, vessels routes, etc.
- **< CCRV >**: commodity curve analysis. This function, applied to a commodity (e.g., Brent crude), returns the curve based on futures for different maturity dates. It is also possible to super-impose on the same plot past curves to analyze the change in expectations regarding the commodity prices.
- **< MAIN >**: This general function provides a list of the main functions you can use.

- `< NEW >`: This function provides a list of the new features and improvements of Bloomberg. You can search within different categories (i.e., fixed-income, equity, mobile, etc.).
- `< HELP >`: Type the function followed by the topic you need help with.

5 Using Bloomberg through Excel

It is very likely that you would need to download data from Bloomberg to Excel in order to perform data analysis, to use the data with additional statistical and econometric software and packages, etc. Doing it is very simple using the Excel Bloomberg add-in. In this short note I will describe only how to download time-series of historical data. Open Excel and choose the Bloomberg tab. Then choose the tab "Import data" and then "Historical End of Day". A wizard will open and guide you to the selection of securities, datatype, sample and additional options. Note that Bloomberg is fast improving the connection between Excel and Bloomberg. For example, more advanced users will like the drag and drop feature that let you simply drag to Excel tables, figures, tickers, etc. directly from a Bloomberg terminal window.