The content of this tutorial should not be construed as investment advice.

Scope
This workshop will introduce participants to the Bloomberg Professional service, a leading source of real-time and historical financial information. The Bloomberg I workshop introduces users to navigating the Bloomberg operating environment while exploring the equity market. Participants will learn how to write and execute commands, using securities and functions while becoming acquainted with Bloomberg’s menus.

Financial information—equity prices, financial statements, financial news—is available from hundreds of different sources and can be accessed in countless ways. The Bloomberg Professional service is just one provider of financial information. Other providers include direct competitors to Bloomberg and subscription research tools like Thomson Reuters, FactSet, and S&P Capital IQ as well as news services like Dow Jones Newswires and ad-revenue driven products like Yahoo! Finance and Google Finance.

The information covered in this workshop can be categorized into the four main categories below. Remember: it is important to understand the sources of the information—where it comes from and who creates it—not just the tools that provide access to the information.

- General Company Information and Company Fundamentals
  The Securities & Exchange Commission (SEC) requires all public companies to disclose pertinent information about their financial activities to the investing public. In this workshop, a great deal of the information we cover is taken from companies’ annual (Form 10-K or 20F) and quarterly (Form 10-Q) filings. Typical content of such reports are the nature and history of the business, organizational structure and market risk, strategy, ownership as well as financial statements—income statement, balance sheet and statement of cash flow.

  Bloomberg contains all this information in both the original filings as well as the raw data in customizable screens which can be downloaded into Excel.

- Current Market Data
  Bloomberg provides access to both current and historical price quotes and volumes. The source of market data is the exchanges at which the equity is traded or aggregators exchange information. Bloomberg provides access to data from a multitude of equity exchanges from the New York Stock Exchange to the Tokyo Stock Exchange to the Kazakhstan Stock Exchange.

- Research & Estimates
  Analyst Reports and Earnings Estimates are provided by investment banks. Bloomberg has contracted with these investment firms in order to gain access to their reports and the data contained within. Some examples of the analyst reports found in Bloomberg include those from JP Morgan, Piper Jaffray and Stifel Nicolaus.

- Company News
  Bloomberg News publishes over 6,000 stories each day. Bloomberg Television and Bloomberg Radio programs are also available through Bloomberg Professional service. Bloomberg not only provides access to their own content, but to the content of other news sources like the Wall Street Journal, Forbes, PR Newswire, web content and even twitter feeds.
Prerequisites
Prior to attending this workshop, students should have a basic understanding of the US financial markets.

Bloomberg Background
Bloomberg L.P. is an information service, news, data and multi-media company. Based in New York, the company employs more than 15,000 people in over 135 offices around the world. Bloomberg is in the business of accessing, reporting, analyzing and distributing financial information.

The Bloomberg Professional service is a source of real-time and historical financial news and information for central banks, investment institutions, commercial banks, government offices and agencies, law firms, corporations and news organizations in over 160 countries. The Bloomberg Professional service is an all-inclusive financial information & workflow product.

Courses at Baruch
To learn more about the basics of financial markets, relevant courses at Baruch include:

Undergraduate: **FIN 3000 Principles of Finance**
Graduate: **FIN 9770 Financial Decision Making**

Consult the Baruch course catalog for more information on these and other Finance courses. The SFSC also offers Bloomberg II, focusing on Fixed Income and related information and a multitude of Reuters Eikon workshops.

Sources of Further Information
The Newman Library and Subotnick Center staff have prepared a number of tutorials, guides and other resources related to Bloomberg and other tools used in finance and economics. They can be found at:

- Wasserman Trading Floor / Subotnick Center home page: [http://zicklin.baruch.cuny.edu/sfsc/](http://zicklin.baruch.cuny.edu/sfsc/)
- Bloomberg University. Command **BU <GO>** within Bloomberg Professional
- The SFSC Blackboard site. To join, log into Blackboard, click on the Community tab and search for “Wasserman”. When the Wasserman Trading Floor, etc. appears, click the “Join” button.

Skills for this workshop
1. Logging into a trading floor workstation and starting Bloomberg Professional Service
2. An overview of navigating within Bloomberg Professional
3. Learning Bloomberg command syntax and navigating menus
4. Retrieving stock quotes for a company
5. Researching fundamental data about a company and identifying the sources of the data
6. Finding news on individual stocks and market sectors
7. Downloading and saving your work

Contents
1. Logging into Bloomberg
2. Bloomberg Keyboard and Navigation
3. Searching Bloomberg
4. Introductory Equity Functions
5. Exporting and Saving Information
6. Common Equity Functions
7. Searching Indices, Other Securities and Statistics
8. Bloomberg University
9. Assistance
10. Conditions and Rules for using the Wasserman Trading Floor / Subotnick Center

## 1. Logging into Bloomberg

**Logging into a trading floor workstation.** To log into a trading floor workstation, press Ctrl-Alt and Del. Please read the summary of the full Usage Agreement as shown below:
By clicking the button below, you agree to the terms and conditions for using the Trading Floor resources as outlined in the Wasserman Trading Floor / Subotnick Center Usage Agreement. Briefly, this agreement stipulates that:

1) The use of the Center is restricted to educational purposes only. Use of the facilities for commercial or personal investment purposes, or to support student internships or other employment is strictly forbidden.
2) Trading or auctioning activities of any kind via any medium (internet, telephone, PDA, etc.) within the Center is strictly forbidden.
3) Cell phone use is forbidden within the Center.
4) Realtime and delayed data may not be captured in bulk or re-transmitted in any way, without exception.
5) Historical data may not be captured or retransmitted in any way. Permissible exceptions are limited to either a) a specific assignment given by a professor for a Baruch course or b) written permission of the Center Director.
6) Downloading or installing software of any kind, including but not limited to search bars and instant messaging clients, is strictly forbidden.
7) Tampering with or damaging any hardware or software in any way is strictly forbidden. Failure to adhere to these terms and conditions will result in removal from the facilities. Please note that we reserve the right to monitor the activities of users of the Center.

You may view the full agreement at the end of this handout. After reading the brief agreement and clicking on the OK button, enter your username and password to login to Windows.

Logging into Bloomberg. Start Bloomberg Professional Service application by double clicking on the Bloomberg icon on the Windows desktop or by going to the Start > Programs > Bloomberg > Bloomberg.

When Bloomberg opens, press the red Connect/Default Key in the upper right-hand corner of the keyboard to prompt the Bloomberg login screen. Enter the username and password found on the keyboard. Four Bloomberg windows will open. These windows support the Bloomberg user’s workflow and allow you to multi-task by operating in multiple windows at once. See Figure 1.

Figure 1. After logging in, Bloomberg opens four windows

2. Bloomberg Keyboard and Navigation

Bloomberg Professional is primarily a command-driven system that utilizes a specialized keyboard for navigation. To operate within the Bloomberg environment, a user must familiarize themselves with this keyboard and its colored keys.
Figure 2. Bloomberg Keyboard with commonly used red and green keys identified. Enter Alt + K in Bloomberg to display the keyboard layout on your screen.

Red - Connectivity keys

- **Connect/Default** - Log on/Off of the Bloomberg Professional service
- **Esc/Cancel** – Cancels the execution of a command

Green – Action and Navigational

- **<GO>** - Executes a command
- **<MENU>** - Returns to the previous screen from which you navigated, or to the MENU.
- **<PAGE UP><PAGE DOWN>** - Scrolls through pages within a menu.
  - Another option is to use your mouse scroll button
- **<HELP>**
  - Enter any search term and press HELP for results organized by category.
  - Press twice to initiate a live chat with a help desk representative. Type in your question and press submit. The representative will direct you accordingly.
- **<SEARCH>** Press search to retrieve an input box from which you can run a search query.
- **<NEWS>** Press this button to see the Top Bloomberg News
- **<MONITR>** Displays Equity Monitor Screen. See also: M <GO>
- **<PRINT>** Saves current panel screen as PDF.
- **<CMND>** Retrieves your most recent command.
  - To see the last eight commands used on the terminal, execute: LAST <GO>

Yellow – Market Sector Keys

- **F1 PEOPLE** – Profiles of executive, notable individuals and Bloomberg subscribers around the world
- **F2 GOVT** – Government securities
- **F3 CORP** – Corporate debt
- **F4 MTGE** – Mortgage-backed securities
- **F5 M-MKT** – Money Markets
- **F6 MUNI** – Bonds issued by U.S. municipalities
- **F7 PFD** – Preferred securities for a company
- **F8 EQUITY** – Company stocks
- **F9 CMDTY** – Exchange listed commodity contracts
- **F10 INDEX** – Financial market & economic indices
• **F11 CRNCY** – Global currency spots/futures/options
• **F12 CLIENT** – Client function (N/A)

**Blue Keys are shortcut keys**

- Panel – This rotates among the open Bloomberg windows.
- Currency Keys - ₵, ₤, ¥
- Fraction Keys – 1/4, 1/2, 1/16, 1/8, 1/64, 1/32

**Question Keys**

- These keys correspond with the Bloomberg Help Chat. Pressing the `<QUEST’N>` once executes the same function as pressing the green `<HELP>` key twice.

### 3. Searching Bloomberg

The input line, located at the upper left-hand corner of any Bloomberg screen, is marked by a blue arrow/cursor. This is where users enter text and commands. Users may search Bloomberg via two methods:

1) **Entering a search query**
2) **Executing a command**

**Enter a Search Query.** Search any concept or topic by entering your search terms and pressing the green `<HELP>` key. In this case, the input box serves as a search engine for Bloomberg. For example, input `SWAP <HELP>`. Once the search query has been entered a help screen will appear with matches for the different help categories. Categories 2-11 are subject-oriented—FAQs, Definitions, Functions, People, etc. while categories 12-21 are for the market sectors, asset classes or statistics. The third category (22 & 23) is for Contributors of the data.

If you want to view a definition of a swap, click category 6: Definitions. If you want to see functions that involve swaps, click category 3: Functions and so on.
The Help menu is also useful for searching for identifying the ticker for a security whether it be a company's stock or other security. For example, a search for **GOOGLE <HELP>** yields 78 hits in category 2: **Companies** as you can see from figure 4.

If you press on category 2: **Companies** you will see Google Inc listed with its ticker (Figure 5.)
Figure 5. Results for a search for the company Google.

Bloomberg settings in the Wasserman Trading Floor have autocomplete enabled. Therefore, related suggestions will be provided for any search term or command you enter into the search box. Autocomplete suggestions fit into two categories: Functions and Securities. Figure 6 demonstrates the autocomplete suggestions when you type in “Google.”

Figure 6. Autocomplete suggestions when typing “Google” as a search term.

Execute a command. Bloomberg is first and foremost a command-driven interface. Knowing how to compose and execute commands will allow a user to fully harness the efficiency and power of the Bloomberg system.
As an example, type GOOG then press F8 followed by the green Enter/Go key. Your input will look like this:

```
GOOG <EQUITY><GO>.
```

Note Figure 6, if you click on the suggestion **GOOG US Equity**, in the list of options, this will also execute the command and retrieve the main **MENU** for Google’s stock (Figure 7).

![Figure 7. The menu screen for the command GOOG <EQUITY> <GO>](image)

The main menu’s categories cover **Company Overview, Company Analysis, Research & Estimates, Comparative Analytics**, etc. Clicking on any of these categories will return more functions beyond the three or four listed on the initial equities screen. Figure 8 shows us an example of this with **Company Overview**. By clicking **Company Overview**, the user can view more options under this category as well as more categories: **Capital Markets & Corporate Actions, Management Overview** and **Holdings**.
The Equity MENU screen provides many options to further explore information on a stock. Each of these options is a function that can be incorporated into a command. For example, in Company Overview, there is a function named “Description”. Note that preceding Description are the letters DES. The DES is referred to as a Mnemonic. The Mnemonic is shorthand for the function. Some more examples are below.

<table>
<thead>
<tr>
<th>Mnemonic</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES</td>
<td>Description</td>
</tr>
<tr>
<td>EVT</td>
<td>Event Calendar</td>
</tr>
<tr>
<td>DVD</td>
<td>Dividends</td>
</tr>
<tr>
<td>MGMT</td>
<td>Management</td>
</tr>
</tbody>
</table>

Users can incorporate functions and mnemonics when executing a command. In the example below, we are looking for a description for Google’s equity within Bloomberg. We need to include three things in order to format a command: 1) Google’s stock ticker, 2) the correct yellow market sector key and 3) the mnemonic for the Description function.

<table>
<thead>
<tr>
<th>Concept:</th>
<th>Entity</th>
<th>Market Sector</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticker</td>
<td>Google</td>
<td>Equity</td>
<td>Description</td>
</tr>
<tr>
<td>Format:</td>
<td>Ticker</td>
<td>F8 &lt;EQUITY&gt;</td>
<td>MNEMONIC</td>
</tr>
<tr>
<td>Command:</td>
<td>GOOG</td>
<td>&lt;EQUITY&gt;</td>
<td>DES</td>
</tr>
</tbody>
</table>

The command GOOG <EQUITY> DES will retrieve the Description screen as seen in Figure 9. The Description menu has four pages which are listed in the horizontal gray bar just under the red horizontal bar: 1) Profile, 2) Issue Info, 3) Ratio and 4) Revenue & EPS.
4. Introductory Equity Functions

Quick Quote Line
- You’ll notice that each menu screen will display a market quote line on the top so users can monitor the current stock details as trading occurs.
- The command for this quote line is: `GOOG <EQUITY> Q <GO>`
- There is also a button corresponding to this command. The button for the quick quote is `<QUOTE 1>`. In order to execute the command you will enter: `GOOG <QUOTE 1>`. Pressing `<Quote 1>` on the keyboard will execute the command. The following information will appear at the top of your screen.

Bloomberg Quote
- There is also a command to return a composite quote. It is called the Bloomberg Quote.
- `<QUOTE 2>` This command and button displays a composite overview of key information for an equity. The command to execute a Bloomberg Quote is `GOOG <QUOTE 2>`
- An alternative full command for this screen is: `GOOG <EQUITY> BQ <GO>`
### Company Financial Analysis

- **GOOG <EQUITY> FA <GO>**
  - The screenshot features the 1) **Key Stats**, but notice the gray tabs along the top for 2) **Income Statement**, 3) **Balance Sheet**, 4) **Cash Flow**, 5) **Ratios** et cetera.

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**Figure 11.** A Bloomberg Quote for Google Stock: GOOG <EQUITY> BQ

**Figure 12.** Screenshot for GOOG <EQUITY> FA <GO>

Output will provide options to download information.
5. Exporting and Saving Information

- Export
  - Print Screen
  - Save Screen as Image

- Red menu bar options to download. Look for the red menu bar which may be named “Action,” “Output to Excel” or “Output Results” to.
  - Action (Example is noted in Figure 13.) will provide options to download information in the formats below:
    - Excel. Excel will automatically open up. Wait for the data to populate.
    - Charts
    - Reports
  - Output to Excel
  - Output Results to
    - Excel

6. Common Equity Functions to Explore

Company Analysis
- Company Description
- Company News
- Management Team
- Financial Analysis
- Product Segmentation
- Geographical Segmentation
- Earnings Matrix
- Analyst Recommendations
- Historical Stock Prices
- Options Monitor
- Earnings Estimates
- Beta Calculations

Graphs & Charts
- Price Graph
- Historical Chart
- Historical Spread Chart

Comparative Analysis
- Relative Valuation
- Relative Value Graph
- Ratio Benchmarking

Company Analyst Recommendations
- This function displays the consensus rating for the last 12 months, as well as the individual analyst recommendations. Note: for the date this screenshot was taken, there were 45 analyst recommendations; 36 buys, six holds and zero sells. Thirty-three recommendations give a target price, which over the last 12 months averages $746.88
- By clicking on the Chart Icon (far right column) users will be able to view the history of individual analyst recommendations in the form of a graph and option to see a table.
Company Relative Valuation

- **GOOG <EQUITY> RV<GO>**
  - This function allows users to compare a company such as Google to its competitors. Note again the gray tabs for more information. Users start with 21) **Overview**, but can also view 22) **Comp Sheets**, 23) **Markets**, et cetera.
  - **Comp Source** is set to Bloomberg defined peers. Users may switch the competitor group by another source or customize their own competitor group.
Company Management

- **GOOG <EQUITY> MGMT <GO>**
- The options on the menu buttons below allow access to different information about company management.

![Company Management Screen](image)

**Figure 15. Company Management screen for Google: GOOG <EQUITY> MGMT<GO>**

**Figure 16. Example of Eric Schmidt’s profile, CEO of Google, within Company Management. Synonymous with using the BBDP, Bloomberg Directory Personnel Lookup or People Search function.**
7. Searching Indices, Other Securities and information

- **SPX<INDEX> DES <GO>**

  As you’ll notice from the command for the S&P 500 Index, issuing commands for indices is exactly the same as it is for equities; however, in this case you use the F10 key for Index, instead of F8.

  Ultimately, this lesson can be applied when issuing a command for any asset class. The components are always:
  1. The ticker of the security
  2. The appropriate F key to issue a command.

  A few examples:

  - DJU<INDEX>
  - USDEUR<CURNCY>
  - GOOG <PFD>
  - GOOG <CORP>
  - T 1 % 05/15/22 <GOVT>
  - CRKSMAYA <INDEX>
  - USURTOT <INDEX>

  Note that commodities example of Mayan Crude is using the index F10 key for indices. Statistics and other data not categorized in an asset class will also use the F10 key.
Members Composition

- **SPX<INDEX> MEMB <GO>**
  - To look at the Members of an index, and their weightings in the index, use the members composition command (Fig. 20).
8. Bloomberg University

Bloomberg University is the users’ access point to all Bloomberg-provided educational resources. The command to access Bloomberg university is **BU <GO>** (Figure 21). Through Bloomberg University users can access the following:

- Bloomberg events & seminars happening in New York City or throughout the world
  - Attend free seminars at Bloomberg headquarters
- Access training documents by market sector and job function
- Recent enhancements to the Bloomberg Professional service
- The Bloomberg Essentials Online Training Platform [BESS <GO>] (Figure 21)
  - In addition to the Subotnick Center workshops, Bloomberg offers online self-directed training on the Bloomberg platform. There are four core courses and upon their completion an exam. Next are market sector modules, addressing equity, fixed income, forex and commodities, each followed by its own exam. Upon your successful completion of the exams (75%), you can request an “Acknowledgement of Completion” certificate.
  - To participate in this training, you should first establish an account in your own name on our Bloomberg terminal; otherwise, the certification will be in the name of the Subotnick Center. Once logged in on the terminal, type BESS and enter and you will reach the page below. You must also bring your own headphones to listen to the videos (Figures 22, 23).
  - Please see one of the assistants if you have any questions.
- Online Training Videos

To sign up for the Bloomberg events/seminars or participate in the BESS exams, users must sign up for their own username and password.
Figure 21. Bloomberg University, BU <GO>

Figure 22. Bloomberg Essentials Online Training Platform BESS <GO>
Follow the directions provided to set up a new login and password.

Fill in the fields, and continue the login creation following steps 1-4.

Figure 23. Bloomberg login screen, create a new login

Figure 24. At the login screen, follow the directions to set up your username and password 1) Continue
9. Assistance

Please see one of the assistants if you have any questions. If you have additional questions about Bloomberg Functionality, please e-mail: ryan.phillips@baruch.cuny.edu

Conditions and Rules for using the Wasserman Trading Floor / Subotnick Center

Use of the Wasserman Trading Floor / Subotnick Center is subject to the following conditions and rules:

1. The Subotnick Center is open only to faculty, undergrads & grad students and alumni.
2. You must have a valid Baruch or CUNY ID Card to use the facilities. Only Keep your ID with you at all times.
3. The use of the Center is restricted to educational purposes only. Use of the facilities for commercial or personal investment purposes, or to support student internships or other employment is strictly forbidden.
4. Trading or auctioning activities of any kind via any medium (internet, telephone, PDA, etc.) within the Center is strictly forbidden.
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8. Downloading or installing software of any kind, including but not limited to search bars and instant messaging clients, is strictly forbidden.
9. Tampering with, damaging or removing any hardware or software in any way is strictly forbidden.
10. Food and beverages are strictly prohibited from the Trading Floor, Seminar Room and Development Classroom areas.
11. Please keep conversations and personal audio devices to a low volume so as not to disturb others.
12. This lab does not provide local storage of data. Computer workstations automatically log off after 30 minutes of inactivity and all working data is erased.
13. The Center staff is not responsible for lost or stolen items. Please keep your valuables with you at all times.

Failure to adhere to these terms and conditions will result in removal from the facilities.

The Center staff reserves the right to monitor the activities of users of the Center and to verify student ID cards with the security desk.