How to use the Bloomberg terminals

Please read these instructions carefully before you use the Bloomberg terminals. Please notice that careless usage of the terminals can have consequences.

Bloomberg offers access to an incredible universe of data. The Department of Banking and Finance at UZH offers UZH students access via two Bloomberg terminals in the library of Plattenstrasse 14.

Part of empirical academic research is to gather and comprise the data. The inconvenience using Bloomberg terminals to conduct academic research arises because Bloomberg basically earns its money with commercial clients (banks etc.) where datasets are usually more specific but relatively small. To incentivize users not to access Bloomberg servers unnecessarily often, the company has introduced different types of data limits.

This document briefly explains how UZH students can access Bloomberg data via the two terminals at Plattenstrasse 14, illustrates how data limits work, describes how to reduce the likelihood of reaching these limits, and shows which alternatives exist.

1) How to access data via the two Bloomberg terminals at Plattenstrasse 14

If you don't have an own Bloomberg account yet, you will have to create one. This account is personal and you are not allowed to share your credentials with others. In the Bloomberg mask please press "Create a New Login". Bloomberg will then lead you through the process. To complete this procedure you will need a mobile phone. You can also use your credentials at any other Bloomberg terminal.

2) How do data limits work?

For a detailed description of all types of download limits use your Bloomberg account (see above) to enter Bloomberg. Then, type "WAPI" <Go> into the Bloomberg mask and click yourself through "WAPI Home -> API General Information -> API Data Limits". For a quick description, see Appendix to this document.

Basically, there are three types of Bloomberg data limits: monthly, daily, and number of securities to monitor at one time. For our purposes (larger datasets), the monthly limit is decisive.

Simply speaking, Bloomberg charges a certain amount each time the user accesses its servers to download data. The price that Bloomberg charges for each data point is dependent on security type (debt, mortgage back security, stock, etc.), data type (price, coupon, etc.), access type (represented by the formula used to download data into, e.g., excel), and many other things. The maximum total amount that Bloomberg allows to download per month represents the "monthly data limit." The limit is not per user but per terminal. If reached, the user cannot download data anymore via excel or other API tools within that month and has to wait until the limit is reset automatically in the upcoming month. Bloomberg does neither communicate the exact details what each data point costs nor what the monthly limit really is.

The next section explains how we can reduce the likelihood of reaching the monthly limit and, thus, how we – together – can maximize the amount of data that we can – in aggregate – download per month. Please comply with these instructions.

3) How to reduce the likelihood of reaching the monthly limit

- a) In general, be aware that each data point you download from Bloomberg brings you closer to this monthly limit. This is only the case if you *download* data. It is not the case if you use the Bloomberg mask! In the mask, you can play around without getting closer to the monthly limit. Thus, before you download data for a larger set of securities, for example, into excel, make sure that you have run tests with a few securities first. Make sure that you have the right securities, variables, and data. Use the mask to investigate whether you really download what you need. Please understand that we all profit from a careful usage of Bloomberg downloads and do not use up the monthly download amount imprudently.
- b) As soon as you start downloading a larger amount of data (several variables for several securities, potentially over time), download it in batches. Reason: If you start a download run and reach the limit within that run, you will get back the error message "monthly limit reached" for each and every downloaded data point. This means that you have reached the limit but that you have not got any data. Running the query in batches and copy-pasting values after each run has the advantage that you really get the data even if you reach the monthly limit at the end.
- c) To download time-series data into Excel, use whenever possible the BDH(.) formula [Bloomberg data historical] instead of BDP(.) [Bloomberg data point]. Reason: BDH accesses Bloomberg servers only once to download a whole vector of time-series data, e.g., to download daily price data of a particular stock. BDP instead downloads one data point for each date and, thus, accesses the servers multiple times, running our monthly limit down a lot faster.
- d) For stock (bond) data, use the terminal on the right (left). Reason: If a certain data point (same variable, same date, same security) is downloaded twice via the same terminal within the same month, the charged amount is lower than two times the full price for the data point. [See also bullet point a): Before you run a query for a large amount of data try to use a few securities and variables to test whether you really get what you want. Running several queries with the same security/variable combination is not as influential on the data limit compared to using different securities/variables].

4) Alternative databases

The Department of Banking and Finance at UZH also has licensed Thomson Reuters Eikon and Datastream. Both of these databases offer access to a similar universe of data as Bloomberg. Both databases are accessible in the library.

The convenience compared to Bloomberg is that both Eikon and Datastream do not have any kind of download limits. Both databases can be accessed via an Excel wizard similar to that in Bloomberg. Try it out!

On the webpage of the Department of Banking and Finance at UZH you can find links to material that helps to learn the handling of Eikon/Datastream (see <u>www.bf.uzh.ch</u>, then "Research -> Databases")

Appendix

Bloomberg data limits (from Terminal)

API Resources / API Data Limits /

Extended Rules and Usage Limits of the Bloomberg API

Before you begin pulling Bloomberg data into your Desktop or Server API application, there are a few extended limits and rules that you should be aware:

Ref# ExtRules

- 1. There is a daily limit to the number of hits you can make to our data servers via the Bloomberg API. A "hit" is defined as one request for a singled security/field pairing. Therefore, if you request static data for 5 fields and 10 securities, that will translate into a total of 50 hits.
- 2. There is a limit to the number of unique securities you can monitor at any one time, where the number of fields is unlimited via the Bloomberg API.
- 3. There is a monthly limit that is based on the volume of unique securities being requested per category (i.e. historical, derived, intraday, pricing, descriptive) from our data servers via the Bloomberg API.
- 4. It is recommended that each consumer of the API be logged into his/her Bloomberg Professional terminal when requesting data. Although, it may be possible to obtain Bloomberg data while not logged into the Bloomberg Professional Service, it is not recommended that you integrate this ability into your workflow, as this could change in the future.

Please read <u>Managing Your API Data Limits</u> for some programming advice you can use to build a more intelligent and data limit-aware Bloomberg API application.

The above rules and limitations are in addition to those outlined in the Bloomberg Data Feed Addendum.

Please read the <u>DesktopAPI Guidelines</u> for a guide on data usage. For further information concerning the Bloomberg License Agreement concerning the distribution and retrieval of data via the Bloomberg API, we suggest that you contact your Bloomberg Account Manager and ask to speak to an API Data Specialist.

See Also:

Managing Your API Data Limits | API Best Practices

Managing Your API Data Limits

You may have already discovered that there is a limit to the amount of daily and monthly data that you can request through the Bloomberg API. The objective of these limits is to ensure that our customers are requesting a reasonable amount of data without frequently hitting our backend servers with unnecessary requests. We at Bloomberg take excess data usage very seriously, and we ask that you do your best to ensure that your Bloomberg API application is requesting data as efficiently and intelligently as possible. In order to help you remain under your data limits, we have put together the following list of helpful hints.

- 1. Begin by reading the brief overview of the Extended Rules and Usage Limits of the Bloomberg API.
- 2. Your Monthly Limit is based on the amount of unique securities being requested for each type of request (i.e. historical, intraday, derived, pricing, descriptive). Therefore, the same security requested more than once for a particular category of data (i.e. historical) is only calculated once during that calendar month (no matter how many fields in each request and, in the case of a historical request, no matter what the length of the period requested). However, if you then requested data for the same security(s), but using a different category of fields (i.e. static pricing data), your usage will increase for each unique security. If you request a high volume of unique securities within a calendar month per category, you are at risk of exceeding your monthly limit.
- 3. Your **Daily Limit** is calculated as a "hit total" limit, and is calculated by adding all of the security/field pairings in your request. Therefore, if you request "IBM US Equity" and 5 fields, that will be 5 total hits (1 X 5). Therefore, although repeat hits aren't factored into your monthly data usage total, they are factored into your daily usage hit total.
- 4. Your Concurrent Real-time Requests limit is calculated as the number of unique securities you are monitoring at any one time. Please note that the definition of a unique security must take into consideration the pricing source. Therefore, if you subscribe to "IBM US Equity" (US being the US Composite) and then "IBM UN Equity" (UN being NYSE), that will count as two subscriptions. However, if you subscribe to "IBM US Equity" and also "/cusip/459200101 US", then that will be subscribing to a total of one unique security. Also, this unique definition also spans over multiple connections to your communication server (i.e. bbcomm.exe, serverapi.exe) from either the same application or multiple applications. Therefore, if you have 4 connections to either communication server and, for example, are subscribing to "IBM US Equity" (or equivalent using another topic prefix such as cusip, isin, etc), then it would count as only one total unique security against your concurrent limits.
- 5. If you are unsure as to whether real-time fields are available in place of the static fields you are using, we suggest you contact the <u>Bloomberg Help Desk</u>, as they are equipped to answer your data-related questions. If you wish, you may also want to use the <u>FLDS <GO></u> function on the Bloomberg Professional Terminal (preferable click on <u>FLDS <GO></u> link for further information).
- 6. Currently, we offer some of our static derived data fields in a real-time format, which are real-time Custom VWAP and Volatilities and "Greeks".
- 7. If your application is currently polling for static data, which you know to be available in real-time format, but you find that monitoring real-time fields provides you with more ticks than you either desire or your application can process without falling behind, you will be glad to hear that we have a potential solution for you.

If you are developing with one of the v3 API programming interfaces, such as Java, C++, .NET, C, or the COM v3 Data Control, we offer interval-based subscription functionality. This allows you to specify a tick interval in your subscription, which would indicate the interval between tick updates sent to your application from the Bloomberg Data Center.

- For Java, C++, .NET and C v3 API users, download the <u>API v3 Developer's Guide</u> and read the "Starting a Subscription" section.
- For COM v3 Data Control users, please see the 2nd example on the <u>SubscriptionList.Add()</u> method page.
- 8. If you have an Excel Worksheet that consists of BDH() functions and you are using Excel's "TODAY()" or "NOW()" function to help form your Start and/or End Date parameters, you may notice that your links continue to update frequently, which will impact your Daily Data Usage totals (security/field hits). In order to ensure this does not occur, we ask that you replace the TODAY() or NOW() function with the Bloomberg provided "BTODAY()" or "BNOW()" function, respectively. This will ensure that the BDH() links do not update after the initial reply is returned. Thus, you will help avoid hitting your Daily Limit. Please note that you may also be using BLPTODAY() or BLPNOW() up to, and including, Excel 2010. However, beginning with Excel 2013, you must use BTODAY() and BNOW(), as BLPTODAY()/BLPNOW() will no longer work.
- 9. If you have any further question(s) pertaining to managing your data limits, please contact the Bloomberg Help Desk.

See Also:

Extended Rules and Usage Limits of the Bloomberg API | API Best Practices

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