Introduction to the Data Room

Philip Schwedler

Leibniz Institute for Financial Research SAFE

Last Update: 17 October 2023
Outline

- Data Sources Overview & Access Data Room
- LSEG Workspace
- Bloomberg Terminal
- WRDS
- Other Databases & Wrap Up
Data Sources at Goethe University

Check out our overview page on Data Sources

- All listed data sources are available via the SAFE Data Room
- Almost all the data we offer is available through WRDS, Refinitiv Workspace (Eikon) and Bloomberg Terminal (with a few exceptions)
Data Source Overview

To name just the most important...

- **Essentials**: Bloomberg Terminal, FactSet Workstation, LSEG Workspace (Eikon) incl. Datastream, S&P Capital IQ Pro (SNL Financials)

- **WRDS**: Compustat, CRSP, CRSP-Compustat Merged, IBES Academic, BoardEx, Orbis Europe M/L/VL, S&P Capital IQ, Option Metrics IvyDB EU + US, Ravenpack, CRSP Mutual Fund Database + Thomson Mutual Funds Holdings + MFLinks, TRACE
Get in contact with us!

dataroom@safe-frankfurt.de
Who is allowed to access?

Generally

- Students of Goethe University
- Researchers of Goethe University and SAFE
- For access to WRDS, more specific rules (see later)
- Details, please find [here](#)
Making an Appointment (Scheduler)
The Home Desktop of Data Room PCs
LSEG Workspace (formerly Refinitiv Workspace or Eikon)
Example: AAPL.O
RICs (Reuters Identifier Codes)

- When searching for securities (e.g. shares, bonds, derivatives), Workspace offers the possibility to search for all known identifiers such as ISIN, CUSIP, WKN, ... 
- most commonly used in Workspace are internal identifiers called RICs.

⇒ "general" RIC Format (not always): TICKER.EXCHANGE 
⇒ e.g. AAPL is the ticker and O stands for NASDAQ (check exchange abbreviations via EXCHID01 command) 
⇒ This can be an advantage because ISINs do not usually contain information about the exchange (usually they implicitly give the data points of the primary exchange, i.e. where the security is primarily traded or where the IPO took place)

- Since RICs (like ISINs, etc.) can change, LSEG also provides permanent identifiers (for Workspace) called PermID, see here here
The Data Item Browser (DIB) command
The **META** command I
### Introduction to the Data Room

**October 17, 2023**

#### The META command II

<table>
<thead>
<tr>
<th>Issuer</th>
<th>RIC</th>
<th>Exchange</th>
<th>TRBC Sector</th>
<th>Type of Equity</th>
<th>Currency</th>
<th>Ex-Dividend</th>
<th>ISIN</th>
<th>CUSIP/CINS</th>
<th>SEDOL</th>
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<td>AAPL</td>
<td>NASDAQ Global Select Consolidated</td>
<td>Phones &amp; Smart Phones</td>
<td>Ordinary Share</td>
<td>US Dollar</td>
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</tbody>
</table>

Philip Schwedler (SAFE)
The **SCREENER** command

![SCREENER command](image-url)
The Workspace Excel Add-In

![Excel Add-In Interface]
The Excel Formula Builder
The **CODEBOOK** command

If you want a programmatic way to retrieve data, you can use the Python API; for example, you can use the **CODEBK** command; see the last slide of this presentation for more information.
Capacity

- Excel: 10m data points per month in Datastream/workspace

\[ \text{Datapoints} = \text{Universe} \cdot \text{Fields} \cdot \text{time points} \]

- (Python) API: (nearly) unrestricted
Useful Links and Documentation

- Q&A Forum
- Learning Center
- Quick Start Guide
The Workspace Helpdesk

- You can always contact us: dataroom@safe-frankfurt.de
  - we have a lot of technical knowledge, not necessarily always in terms of content
  - we can refer you to the Refinitiv Helpdesk: my.refinitiv.com
The Workspace Helpdesk Problem...

Hi Philip,

Good day.

We have received your concern about downloading filing reports via Workspace's Python script.

Upon our initial check, your user ID: schwedler@safe frankfurt.de is entitled for the student variant of Refinitiv Workspace, as per our agreement with the universities for access to our product, we are only able to provide full support to university personnel.

Given the current circumstance and type of access you have to workspace, we highly recommend to raise the data and product related questions to the following university personnel.

1. Librarian
2. Course Administrator
3. Professor
4. Lecturer
5. PhD Student
6. Student users with Academic Staff Add-on or AMR for Academic Staff Add-on

⇒ If you have difficulties with the helpdesk, contact us.
How To Login I

Bloomberg

<Enter> or <GO> to begin

Select Language for Analytics and Communication Functions:

- English
- Español
- 日本語
- Português
- Français
- Italiano
- 繁體中文
- Deutsch
- 簡体中文
- Русский
- Türkçe

To customize your News language experience type LANG <GO> after login.

Contact Us

S/N 463272-0 | SID 6790573-1 | Version 125.1.80
How To Login II

Bloomberg

Login Name
Password
Login

Select Language for Analytics and Communication Functions:

- English
- Español
- Português
- 日本語
- Français
- Italiano
- Deutsch
- 简体中文
- 繁體中文
- Русский
- Türkçe

Forgot Login Name or Password?

Contact Us
Create a New Login

S/N 463272-0 | SID 6790573-1 | Version 125.1 | Netid X593

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How To Login III

Welcome to the Bloomberg Terminal

Bloomberg logins are firm specific. If you are new to the firm, you will need to create your new Bloomberg Terminal Login.

Who are you creating this login for?

○ Myself  ○ Someone else

Have you ever been a Bloomberg Terminal User?

○ Yes  ○ No

[Login Creation Interface]

I) Next >>  Cancel
How To Login IV

We need to send you a verification code to verify the account.

How do you want the code to be delivered?

- SMS Text
- Automated Phone Call
- Email

(Mobile)

<Select phone number>
The Bloomberg Terminal
The Main Menu
Example: Equities
## The FLDS command

![FLDS screenshot]

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<th>ID</th>
<th>Mnemonik</th>
<th>Wert</th>
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<td>HIGH_LIFETIME</td>
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<td>LAST_PRICE</td>
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</table>
The Bloomberg Excel Add-In
Bloomberg Excel Functions

- **BDH**: Bloomberg Data History retrieves historical values (end-of-day or intra-day)
  
  \[= \text{BDH}(\text{Security}, \text{Field}, \text{StartDate}, \text{EndDate}, [\text{option}])\]

- **BDP**: Bloomberg Data Point retrieves current or real-time values.
  
  \[= \text{BDP}(\text{Security}, \text{Field}, [\text{option}])\]

- **BDS**: Bloomberg Data Set populates multiple cells with descriptive data for a security
  
  \[= \text{BDS}(\text{Security}, \text{Field}, [\text{option}])\]

- **BQL**: Bloomberg Query Language is a separate approach that enables more-robust, SQL-like queries.
  
  \[= \text{BQL}(\text{Instrument}, \text{Function}, \text{Range})\]
Capacity I

Monthly Downloading Limit

- Monthly limits comes from a proprietary model.
- This limit is based on unique securities and depends on the type of data being downloaded.
- For example: some of the data on the system such as intra-day is valued a little bit higher than historical end of day for any given list of securities.
- **We do not recommend more than 5000 to 7000 unique identifiers per month.**
- Once a security is used once in a month then if you use it again it will not count again towards the monthly limit.
Capacity II

Daily Downloading Limit

- The Daily API limit is 500,000 hits/per day.
- A “hit” is defined as one request for a single security/field pairing.

\[ \text{Hits} = \text{Securities} \cdot \text{Fields} \cdot \text{time points} \]

License Issue

- Bloomberg Anywhere License (Personalized)
- Bloomberg Terminal License

⇒ not the same coverage, in particular for fixed income data
No Capacity?

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<td></td>
<td></td>
<td></td>
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<td>2</td>
<td></td>
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</tr>
</tbody>
</table>
The Bloomberg Helpdesk I
The Bloomberg Helpdesk II
The Bloomberg Helpdesk III

Welcome! Please enter your question below. For the most efficient service, please include details.

* Hint: Include the asset class, function and security to help us get you to the best possible representative. Thank you!

[Chat Interface Image]
How to access WRDS data

There are two ways to retrieve data from WRDS

- Build a Query on the WRDS Webpage
- Use the (Python) API

This is how you can access WRDS

- Bachelor and Master students: Day Pass account in the SAFE Data Room
- Researchers ( Faculty, PhD Students, Research Assistants): Personal Account, use at own computer

ONLY PERSONAL WRDS accounts are allowed to use the API!
(Sorry, we do not make the rules)
Get WRDS Day Pass I
Get WRDS Day Pass II

Email Sent
We have just sent an email with the subject 'Your WRDS Day Pass' from wrds-support@wharton.upenn.edu to s8423967@stud.uni-frankfurt.de. Please click on the link in that email to sign in. Please also make sure that your email filtering does not mark emails from wrds-support@wharton.upenn.edu as junk mail.

Welcome to WRDS!
Wharton Research Data Services (WRDS) provides the leading business intelligence, data analytics, and research platform to global institutions - enabling comprehensive thought leadership, historical analysis, and insight into the latest innovations in research.

For additional information, please see the About section.

Connect with us on Facebook!
Dear WRDS User,

Thank you for requesting a Day Pass for WRDS access. Your connection string is:

https://wrds:securewharton.upenn.edu/connections/a2f8b5e0a010a775c069f6f90d1c8c1e6063e2a13e60c5a3c67077d296c/

The above link is valid for a 1 day pass to WRDS, enabling you to access the data to which your institution subscribes via the WRDS platform. Clicking on the link will take you directly to the WRDS website.

Please make sure to enter your email address on the query page of any jobs you run which may finish after this pass has expired. Obtaining any results which become available after this pass has expired will then simply require a new day pass.

Please note that your use of the WRDS website and other services offered by WRDS is contingent upon your acceptance of and agreement to the WRDS Terms of Use, available here:

https://wrdswww.wharton.upenn.edu/users/you

If you have any issues or questions, please reply directly to this email (wrds-support@wharton.upenn.edu).

Kind Regards,
The WRDS Team

[Link mailed at 10:42:25 on 2023-09-20]
Build a Query

**BvD Orbis - Global Financials for Industrial Companies (in USD)**

The source data of this web query form are `ob_w_company_id_table_*` and `ob_w_ind_g_fins_fcl_usd_*`.

Step 1: Choose your date range.

Date variable(s):

```
2022-03-31 to 2023-03-31
```

Step 2: Apply your company codes.

What format are your company codes?
- BvD ID Number
- LEI
- ticker
- ISIN

Select an option for entering your company codes:

- [ ] Company Codes
- [ ] Code List Name

Please enter company codes separated by a space.

Example:

- [BvD ID Number] US942404110 US911144442
- [ticker] AAPL MSFT
- [ISIN] US5037031000 US5949181040
- [LEI] HWUPKROIPOU8FGXEBT584
- INR2EJ1ERANOW8ZP974

[-------Select Saved Codes List-------]
After you have made a Query

Query 7604554, for bvd_orbis_large

Status: Success
Product: bvd_orbis_large

Results:
- Result Size: 4 KiB
- Result Count: 1 Rows
- Output Files:
  - ~/wrds_query_output/flip5dnyhzdjcrl0t.csv

Results are also in your home directory at: ~/wrds_query_output/.
See WRDS Cloud: Access Web Query Output for more details.

Timing:
- Elapsed Time: 8 seconds
- Submitted: 2023-10-04 17:31
- Work Begun: 2023-10-04 17:31
- Work Finished: 2023-10-04 17:31

Data Retention
- Results data will be accessible for 2 days, until 2023-10-06, 17:31

Notice
- Your use of WRDS and this data extract must comply with the WRDS Terms of Use.
- There may be additional usage restrictions that are governed by your institution’s licensing of specific databases. If you have any questions about data licensing and appropriate usage, please contact WRDS using the Support form.
Find Your Query

- CONTACT
- PHILIP'S ACCOUNT
- LOGOUT
- YOUR ACCOUNT INFO
- PREFERENCES
- WRDS 2FA BY DUO
- RUNNING QUERIES
- SAVED QUERIES & CODES
- PRODUCTS
- CHANGE PASSWORD
- EXPIRATION EXTENSION
- ACCOUNT TRANSFER
- TERMS OF USE
Access Your Query

⇒ This is hosted in the **WRDS Cloud**, a High Performance Computing cluster!
Wrap Up

Hopefully you have learned

- how to get access to the data room
- which data sources are available and who to contact
- how to get started with Workspace (Eikon), Bloomberg, and WRDS
- how to find the documentation for the Excel-Addins
- how to find the documentation for the product specific symbology
It can be useful to also check the so-called APIs for retrieving data. I held a seminar on this topic six months ago, see here. Considerations for using Excel add-ins or (Python) API:

<table>
<thead>
<tr>
<th>Python API</th>
<th>Excel Add-in</th>
</tr>
</thead>
<tbody>
<tr>
<td>systematic data</td>
<td>data exploration</td>
</tr>
<tr>
<td>retrieve large</td>
<td>small amounts of data</td>
</tr>
<tr>
<td>amounts of data</td>
<td></td>
</tr>
</tbody>
</table>
Thank you!