



Universiteit Utrecht

## Finance Data

## Wharton Research Data Services



### 1. Introduction

The Wharton Research Data Services (WRDS) is a research platform provided by the University of Pennsylvania. It is very simple in its use but contains a lot of detailed information. It is accessible via your browser from where you can download your data easily into Excel.

#### 1.1 How to get an account

In order to use WRDS you need to open an account on the WRDS website. They will need to know for what purpose you use WRDS, and from what university you are.

Opening a new account is simple and requires only a couple of minutes.

First, go to <https://wrds-web.wharton.upenn.edu/wrds/> and click on the 'Register' button.

In the first menu you select your university. For students of the UU, it's called 'Utrecht University'. For 'Affiliation with Institution' select the most fitting one. For most of you this will be 'Masters student'.

In the remaining fields you can enter your name and login credentials as you wish and then click on 'Register'.

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Institution	<input type="text" value="Utrecht University"/>
	<a href="#">Institution not listed?</a>
Affiliation With Institution	<input type="text" value="Masters Student"/>
	<a href="#">What affiliation type should I use?</a>
First Name	<input type="text" value="Finance"/>
Last Name	<input type="text" value="Data"/>
Email (assigned by your institution)	<input type="text" value="uufinancedata@gmail.com"/>
Department <i>(optional)</i>	<input type="text" value="Department (optional)"/>
Desired Username	<input type="text" value="uufinanc"/>
When Do You Expect Your Degree? (mm/dd/yyyy)	<input type="text" value="04/29/2019"/>

Figure 1: Finished request

## 1.2 Additional help

If you are stuck somewhere or you have any other questions you can as always contact the **student assistant for finance data**, or contact WRDS directly via the website. In the main menu

click on 'Support', 'Contact WRDS Support' and then fill out the simple form. Please make sure that the answer to your question is not in this manual.

WRDS also offers an E-learning library with videos how to use WRDS:

[WRDS E-learning](#)

## 2. Getting Started

### 2.1 Your Subscriptions

Before we start downloading data we will first have a look at how WRDS works and what we can get out of it. The idea behind WRDS is a collection of various financial databases put into one browser-based program to simplify data retrieval. What this means is that WRDS has access to other databases like **Compustat** or databases from **Bureau van Dijk** (Amadeus, Osiris etc.)

We can see our subscriptions by logging into WRDS. On the front page we a selection of databases to which we have access. The amount of subscriptions depends on the kind of account that you have.

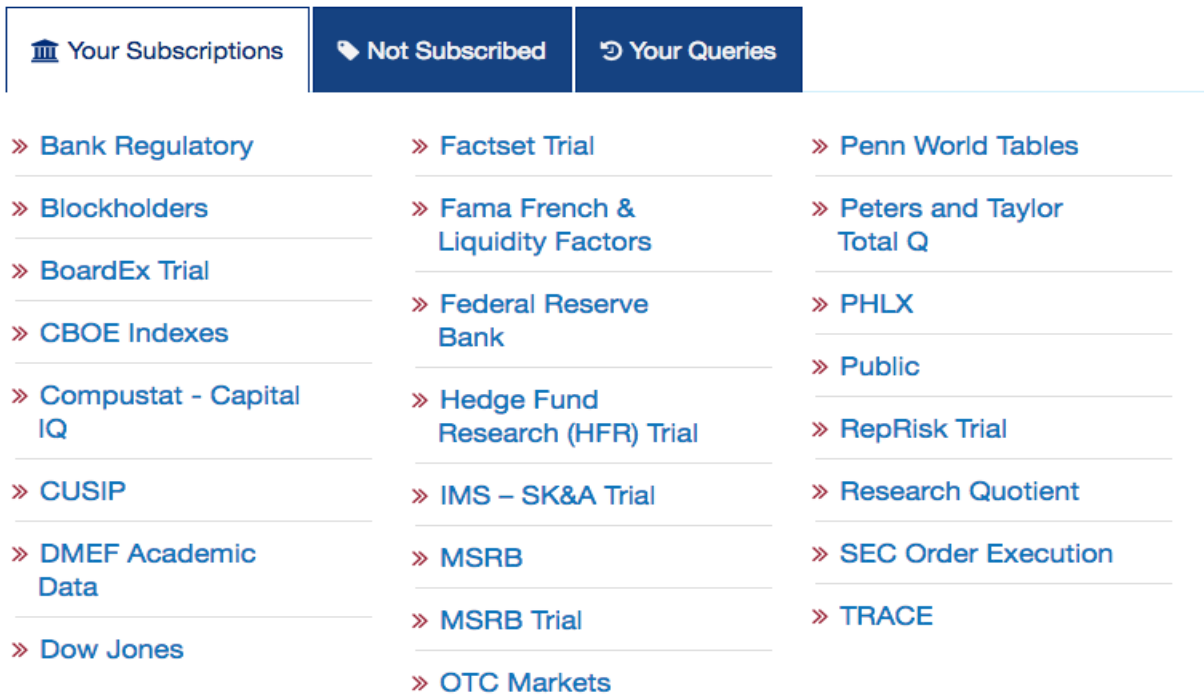


Figure 2: My Subscriptions

(See chapter \*\* for more info)

## 2.2 A basic company financials Query

WRDS has a lot of complex options that you can use to download data. But fortunately the concept is mostly the same. Everything starts with a request for a query. In this section we look at a very simple query for company financials.

After logging in, we see select 'Get Data' in the top menu. This will open a drop-down menu, where we can choose **how** we want to search for data. In this particular example, as we are looking for stock prices, we select 'Company Financials' in the 'Concepts' column.

This will open up a menu like in Figure 2. In this menu we choose the source of the data we want to download from.

**TIP:** As WRDS is a collection of various databases, a lot of data is available multiple times in different databases. Therefore, there's never only one way to retrieve the data you want.

Home / Company Financials

## Company Financials

Financial Statements: BS, IS and CF Data Items	Industry-Specific, Segment, and Pension Data	Point In Time Accounting Data
Compustat North America	Compustat NA Segment	Compustat Preliminary History
Compustat Global Fundamentals	Compustat NA Industry-Specific	Compustat Unrested Quarterly
Factset Fundamentals US	Compustat NA Pension	Compustat Point-in-Time for Quarterly Data
Factset Fundamentals Global		
BvD: Amadeus, ISIS, and OSIRIS		
PACAP Pacific Basin Companies		
CSMAR China-Stock-Market Financials		
CRSP-Compustat Merged (CCM)		

Index Fundamentals and Constituents	Audit and Regulatory Filings Data	Banks
Compustat NA Index Fundamentals Annual	Audit Analytics	Compustat Bank
Compustat NA Index Constituents	WRDS SEC Analytics Suite	Bank Regulatory - Federal Reserve Bank of Chicago (Call Reports)
Compustat NA Index Prices	S&P Filings Database	WRDS-Reuters DealScan
CRSP Daily S&P500 Index Constituents (SAS file)		FRB H15 Interest Rates
CRSP Monthly S&P500 Index Constituents(SAS file)		FDIC (Legacy)
		BvD BankScope
		BvD OSIRIS

Figure 3: Choose a source

Choosing the right database is not always simple, but mostly just a trial and error. For this example, we select **Compustat North America**.

After we selected a source, a basic query form will pop up. This query form mostly looks the same and is where we enter the specifics for our data request.

**Step 1** is select a data range, which is straight forward.

Under **Step 2**, we are asked to enter the universe of companies we want to retrieve data from. We will discuss how to create lists of companies in section 2.3. For this query we only select a few

companies by manually entering them. We can type in the codes for the companies we want. If you don't know the codes, open the [\[ Code Lookup \]](#) and search for your companies.

Under 'Conditional statements' we can also conditionally filter out equities we are not interested in. But as we entered the firms manually, we do not need this right now. (Section \*\*)

**Step 3** is where we select our **data items** that we want to download. We can select as many as we want out of a selection of 973 items.

In the menu for data items it is also possible to sort the items categorically. For instance, if we want to download a whole cash flow statement, we first filter out the cash flow items and then select them all, instead of selecting them all one by one.

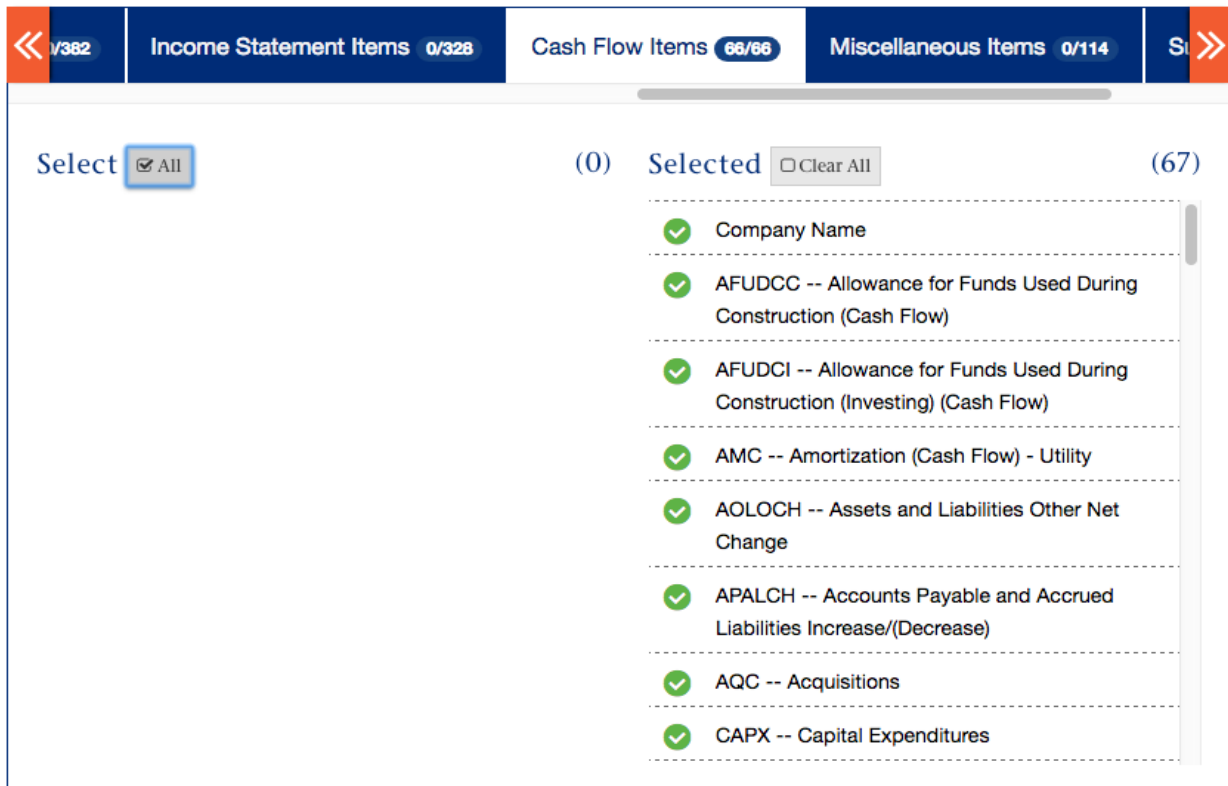


Figure 4: Download a whole cash flow statement

**TIP:** Include information about the companies to keep a good overview of the data.

For **Step 4** we can select the desired format for our data and whether we want to compress the file or not. Probably the easiest way is to get all the data into Excel. (Select .xlsx as output format)

All that is left is to submit our query by clicking on the button. This will pop up a new tab with a short description to our data. We download the file by clicking on the query name in the top middle.

We value your feedback! While you are waiting for your results, please consider taking the [WRDS 2017 data survey](#). Your feedback will help us to decide which datasets will be on the WRDS platform in the future.

Your data query results will be accessible for the next 48 hours in the MyWRDS section of the website.

**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](#).

## Data Request Summary

Your output is complete. Click on the link below to open the output file.

[6d7b03406d3983ec.xlsx](#) (8 KB, 12 observations 77 variables)

### Download instructions

Internet Explorer and Firefox users... Right-click and select "Save Target As..."

Data Request ID	6d7b03406d3983ec
Libraries/Data Sets	compm/funda /
Frequency/Date Range	ann / 01Jan2014 - 30Apr2017
Search Variable	TIC
Input Codes 5 item(s)	AAPL SNA FB IBM DELL
Conditional Statements	n/a

Figure 5: Download your file

After the download is finished you can open your data in Excel and start with your analysis.

## 2.3 Text lists

WRDS offers a special feature to insert your selection of companies. It is possible to upload simple text files with codes and WRDS will be able to read it. Creating such a list is very simple, and can be connected with Eikon and Datastream, or any other source for company codes.

There are several possibilities to create a .txt file. For instance, one can convert a word file to a .txt file. Another way is to just create a new .txt file by using a text editor. Every OS will have a text editor preinstalled.

The way to enter codes is one code per line. If you have your list already defined, you can just enter all the tickers.

It is also possible to just google for a list of firms. For instance, if we want to download a complete list for all equities in the **S&P 500**, we can find it simply on Wikipedia.

# FINANCE DATA: WHARTON RESEARCH DATA SERVICES (WRDS)

## List of S&P 500 companies

From Wikipedia, the free encyclopedia

The **S&P 500 stock market index**, maintained by **S&P Dow Jones Indices**, comprises **505 common stocks** issued by **500 large-cap** companies and traded on American stock exchanges, and covers about 80 percent of the American equity market by capitalization. The index is weighted by free-float market capitalization, so more valuable companies account for relatively more of the index. The index constituents and the constituent weights are updated and checked on regularly using rules published by S&P Dow Jones Indices. Although the index is called the S&P "500", the index contains 505 stocks because it includes two share classes of stock from 5 of its component companies.<sup>[1][2]</sup>

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1 S&P 500 Component Stocks
2 Recent and announced changes to the list of S&P 500 Components
3 See also
4 External links
5 References

### S&P 500 Component Stocks [edit]

Ticker symbol	Security	SEC filings	GICS Sector	GICS Sub Industry	Address of Headquarters	Date first added	CIK
MMM	3M Company	reports	Industrials	Industrial Conglomerates	St. Paul, Minnesota		0000066740
ABT	Abbott Laboratories	reports	Health Care	Health Care Equipment	North Chicago, Illinois	1964-03-31	0000001800
ABBV	AbbVie	reports	Health Care	Pharmaceuticals	North Chicago, Illinois	2012-12-31	001551152
ACN	Accenture plc	reports	Information Technology	IT Consulting & Other Services	Dublin, Ireland	2011-07-06	001467373
ATVI	Activision Blizzard	reports	Information Technology	Home Entertainment Software	Santa Monica, California	2015-08-31	0000718877
AYI	Acuty Brands Inc	reports	Industrials	Electrical Components & Equipment	Atlanta, Georgia	2016-05-03	0001144215
ADBE	Adobe Systems Inc	reports	Information Technology	Application Software	San Jose, California	1997-05-05	0000796343
AMD	Advanced Micro Devices Inc	reports	Information Technology	Semiconductors	Sunnyvale, California	2017-03-20	0000020488
AAP	Advance Auto Parts	reports	Consumer Discretionary	Automotive Retail	Roanoke, Virginia	2015-07-09	0001158449
AES	AES Corp	reports	Utilities	Independent Power Producers & Energy Traders	Arlington, Virginia		0000874761
AET	Aetna Inc	reports	Health Care	Managed Health Care	Hartford, Connecticut	1976-06-30	001122304
AMG	Affiliated Managers Group Inc	reports	Financials	Asset Management & Custody Banks	Beverly, Massachusetts	2014-07-01	001004434
AFL	AFLAC Inc	reports	Financials	Life & Health Insurance	Columbus, Georgia		0000004977
AI	Agilent Technologies Inc	reports	Health Care	Health Care Equipment	Santa Clara, California	2000-06-05	001090872
APD	Air Products & Chemicals Inc	reports	Materials	Industrial Gases	Allentown, Pennsylvania	1985-04-30	0000002969
AKAM	Akamai Technologies Inc	reports	Information Technology	Internet Software & Services	Cambridge, Massachusetts	2007-07-12	001086222
ALK	Alaska Air Group Inc	reports	Industrials	Airlines	Seattle, Washington	2016-05-13	0000766421
ALB	Albemarle Corp	reports	Materials	Specialty Chemicals	Baton Rouge, Louisiana	2016-07-01	0000915913
ARE	Alexandria Real Estate Equities Inc	reports	Real Estate	Office REITs	Pasadena, California	2017-03-20	001035443
AGN	Allergan, Plc	reports	Health Care	Pharmaceuticals	Dublin, Ireland		0000884629
LNT	Alliant Energy Corp	reports	Utilities	Electric Utilities	Madison, Wisconsin	2016-07-01	0000352541
ALXN	Alexion Pharmaceuticals	reports	Health Care	Biotechnology	Cheshire, Connecticut	2012-05-25	0000899866
ALLE	Allegion	reports	Industrials	Building Products	Dublin, Ireland	2013-12-02	0001579241

Figure 6: List on Wikipedia

As it is not possible to only select one column in this document, we copy everything and put in a spreadsheet. Then we select the first column in the spreadsheet and copy it into the text editor.



FINANCE DATA: WHARTON RESEARCH DATA SERVICES (WRDS)

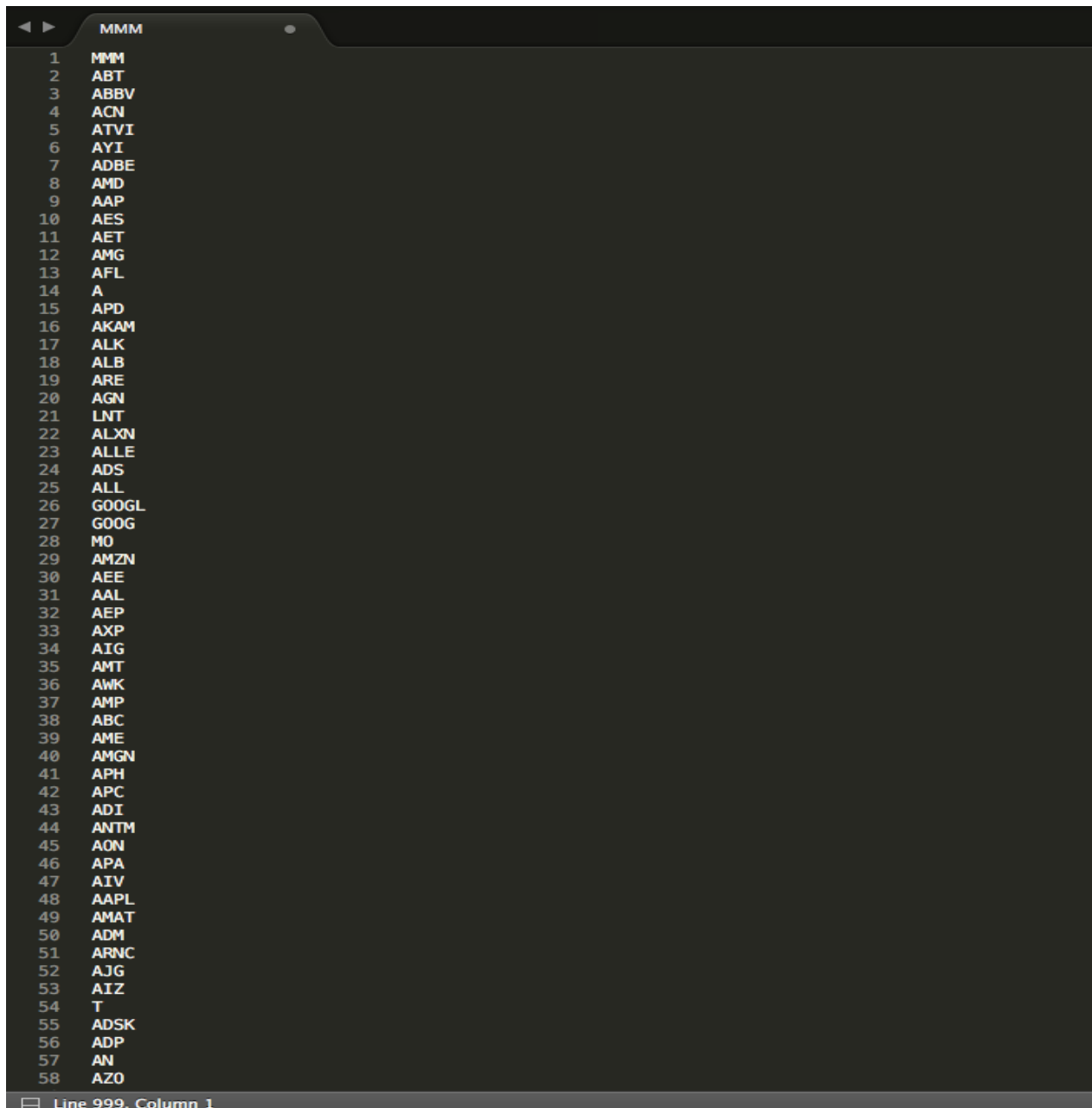
Untitled spreadsheet ☆ ■

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

fx MMM

	A	B	C	D	E	F	G	H
1	MMM	3M Company	reports	Industrials	Industrial Cong	St. Paul, Minnesota		66740
2	ABT	Abbott Laborat	reports	Health Care	Health Care Eq	North Chicago,	1964-03-31	1800
3	ABBV	AbbVie	reports	Health Care	Pharmaceutical	North Chicago,	2012-12-31	1551152
4	ACN	Accenture plc	reports	Information Tec	IT Consulting &	Dublin, Ireland	2011-07-06	1467373
5	ATVI	Activision Blizz	reports	Information Tec	Home Entertain	Santa Monica, C	2015-08-31	718877
6	AYI	Acuity Brands I	reports	Industrials	Electrical Comp	Atlanta, Georgi	2016-05-03	1144215
7	ADBE	Adobe Systems	reports	Information Tec	Application Sof	San Jose, Calif	1997-05-05	796343
8	AMD	Advanced Micr	reports	Information Tec	Semiconductor	Sunnyvale, Cal	2017-03-20	2488
9	AAP	Advance Auto F	reports	Consumer Disc	Automotive Ret	Roanoke, Virgir	2015-07-09	1158449
10	AES	AES Corp	reports	Utilities	Independent Pc	Arlington, Virginia		874761
11	AET	Aetna Inc	reports	Health Care	Managed Health	Hartford, Conne	1976-06-30	1122304
12	AMG	Affiliated Mana	reports	Financials	Asset Manager	Beverly, Massa	2014-07-01	1004434
13	AFL	AFLAC Inc	reports	Financials	Life & Health In	Columbus, Georgia		4977
14	A	Agilent Technol	reports	Health Care	Health Care Eq	Santa Clara, Ca	2000-06-05	1090872
15	APD	Air Products &	reports	Materials	Industrial Gase	Allentown, Pen	1985-04-30	2969
16	AKAM	Akamai Techno	reports	Information Tec	Internet Softwa	Cambridge, Ma	2007-07-12	1086222
17	ALK	Alaska Air Grou	reports	Industrials	Airlines	Seattle, Washir	2016-05-13	766421
18	ALB	Albermarle Corp	reports	Materials	Specialty Cherr	Baton Rouge, L	2016-07-01	915913
19	ARE	Alexandria Rea	reports	Real Estate	Office REITs	Pasadena, Cali	2017-03-20	1035443
20	AGN	Allergan, Plc	reports	Health Care	Pharmaceutical	Dublin, Ireland		884629
21	LNT	Alliant Energy C	reports	Utilities	Electric Utilities	Madison, Wisco	2016-07-01	352541
22	ALXN	Alexion Pharm	reports	Health Care	Biotechnology	Cheshire, Conr	2012-05-25	899866
23	ALLE	Alliegon	reports	Industrials	Building Produc	Dublin, Ireland	2013-12-02	1579241
24	ADS	Alliance Data S	reports	Information Tec	Data Processin	Plano, Texas	2013-12-23	1101215
25	ALL	Allstate Corp	reports	Financials	Property & Cas	Northfield Townshp, Illinois		899051
26	GOOGL	Alphabet Inc Cl	reports	Information Tec	Internet Softwa	Mountain View,	2014-04-03	1652044
27	GOOG	Alphabet Inc Cl	reports	Information Tec	Internet Softwa	Mountain View, California		1652044
28	MO	Altria Group Inc	reports	Consumer Stap	Tobacco	Richmond, Virginia		764180
29	AMZN	Amazon.com Ir	reports	Consumer Disc	Internet & Direc	Seattle, Washir	2005-11-18	1018724
30	AEE	Ameren Corp	reports	Utilities	Multi-Utilities	St. Louis, Missc	1991-09-19	1002910
31	AAL	American Airlin	reports	Industrials	Airlines	Fort Worth, Tex	2015-03-23	6201
32	AEP	American Elect	reports	Utilities	Electric Utilities	Columbus, Ohio		4904
33	AXP	American Expre	reports	Financials	Consumer Fina	New York, New	1976-06-30	4962
34	AIG	American Intern	reports	Financials	Property & Cas	New York, New	1980-03-31	5272
35	AMT	American Towe	reports	Real Estate	Specialized RE	Boston, Massa	2007-11-19	1053507
36	AWK	American Wate	reports	Utilities	Water Utilities	Voorhees, New	2016-03-04	1410636
37	AMP	Ameriprise Fin	reports	Financials	Asset Manager	Minneapolis, M	2005-10-03	820027
38	ABC	AmerisourceBe	reports	Health Care	Health Care Dis	Chesterbrook, J	2001-08-30	1140859
39	AME	AMETEK Inc	reports	Industrials	Electrical Comp	Berwyn, Penns	2013-09-23	1037868
40	AMGN	Amgen Inc	reports	Health Care	Biotechnology	Thousand Oaks	1992-01-02	318154
41	APH	Amphenol Corp	reports	Information Tec	Electronic Com	Wallingford, Co	2008-09-30	820313
42	APC	Anadarko Petr	reports	Energy	Oil & Gas Explo	The Woodlands, Texas		773910
43	ADI	Analog Devices	reports	Information Tec	Semiconductor	Norwood, Massachusetts		6281
44	ANTM	Anthem Inc.	reports	Health Care	Managed Health	Indianapolis, Indiana		1156039
45	AON	Aon plc	reports	Financials	Insurance Brok	London, United Kingdom		315223

Figure 7: Select the first column



```
MMM
ABT
ABBV
ACN
ATVI
AYI
ADBE
AMD
AAP
AES
AET
AMG
AFL
A
APD
AKAM
ALK
ALB
ARE
AGN
LNT
ALXN
ALLE
ADS
ALL
GOOGL
GOOG
MO
AMZN
AEE
AAL
AEP
AXP
AIG
AMT
AWK
AMP
ABC
AME
AMGN
APH
APC
ADI
ANTM
AON
APA
AIV
AAPL
AMAT
ADM
ARNC
AJG
AIZ
T
ADSK
ADP
AN
AZO
```

Line 999, Column 1

Figure 8: All the codes in the text editor

Save the file now in a .txt format so you can use it. With this simple process we can copy anything into WRDS.

Another way is to download the codes from Eikon and then copy them all into the text file the same way it is described above.